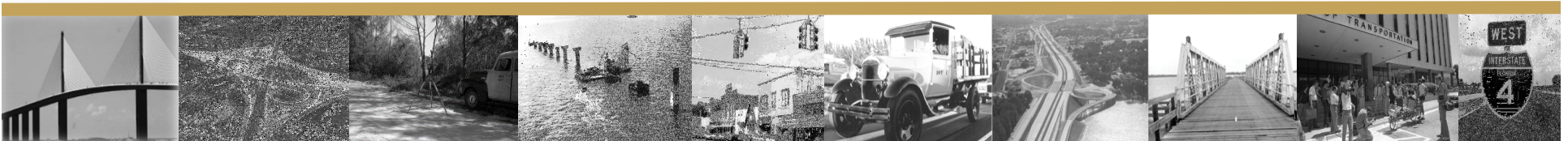




Horizontal Geometry Tools in FDOTSS4

Vern Danforth

Tuesday, June 9, 2015 pm



Innovative Solutions for tomorrow's transportation needs

Session Topics

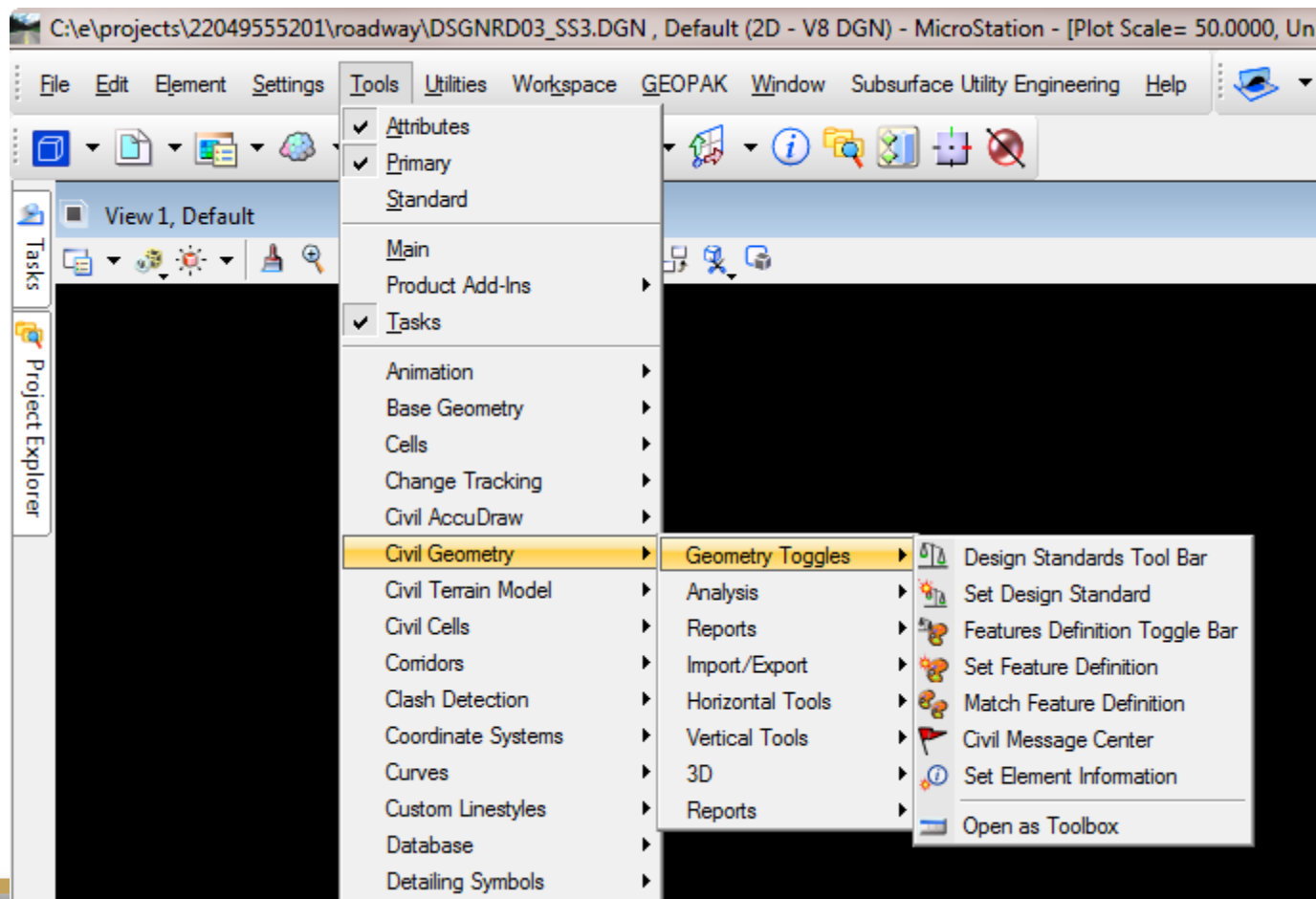
Bentley Civil SS4 Tools in FDOTSS4

- [Analysis and Reporting](#)
- [General Geometry](#)
- [Horizontal Geometry](#)
- [Civil Cells](#)



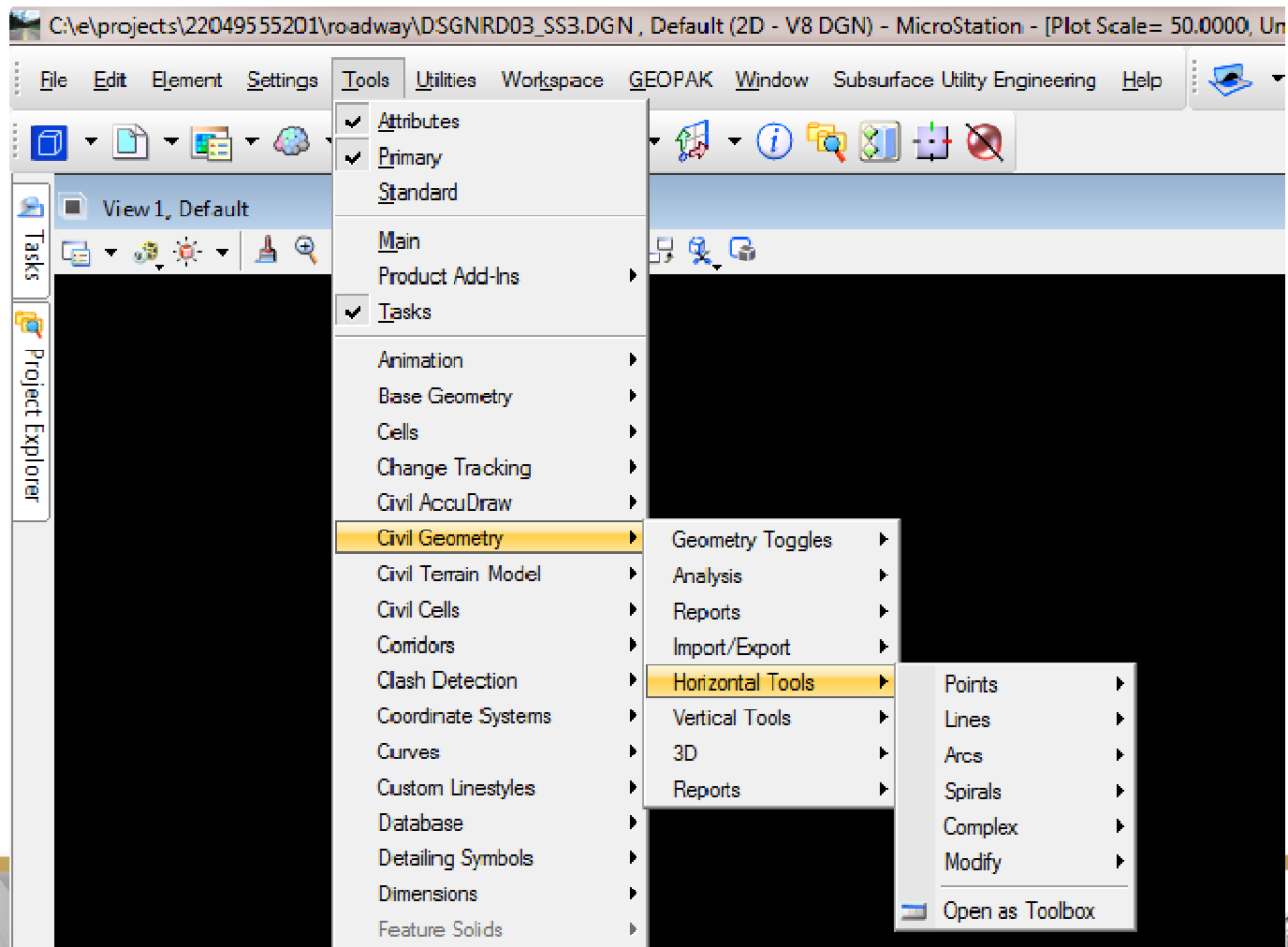
Innovative Solutions for tomorrow's transportation needs

Tools – Civil Geometry



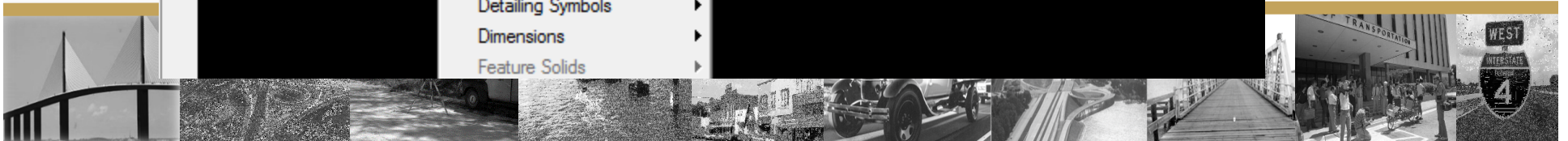
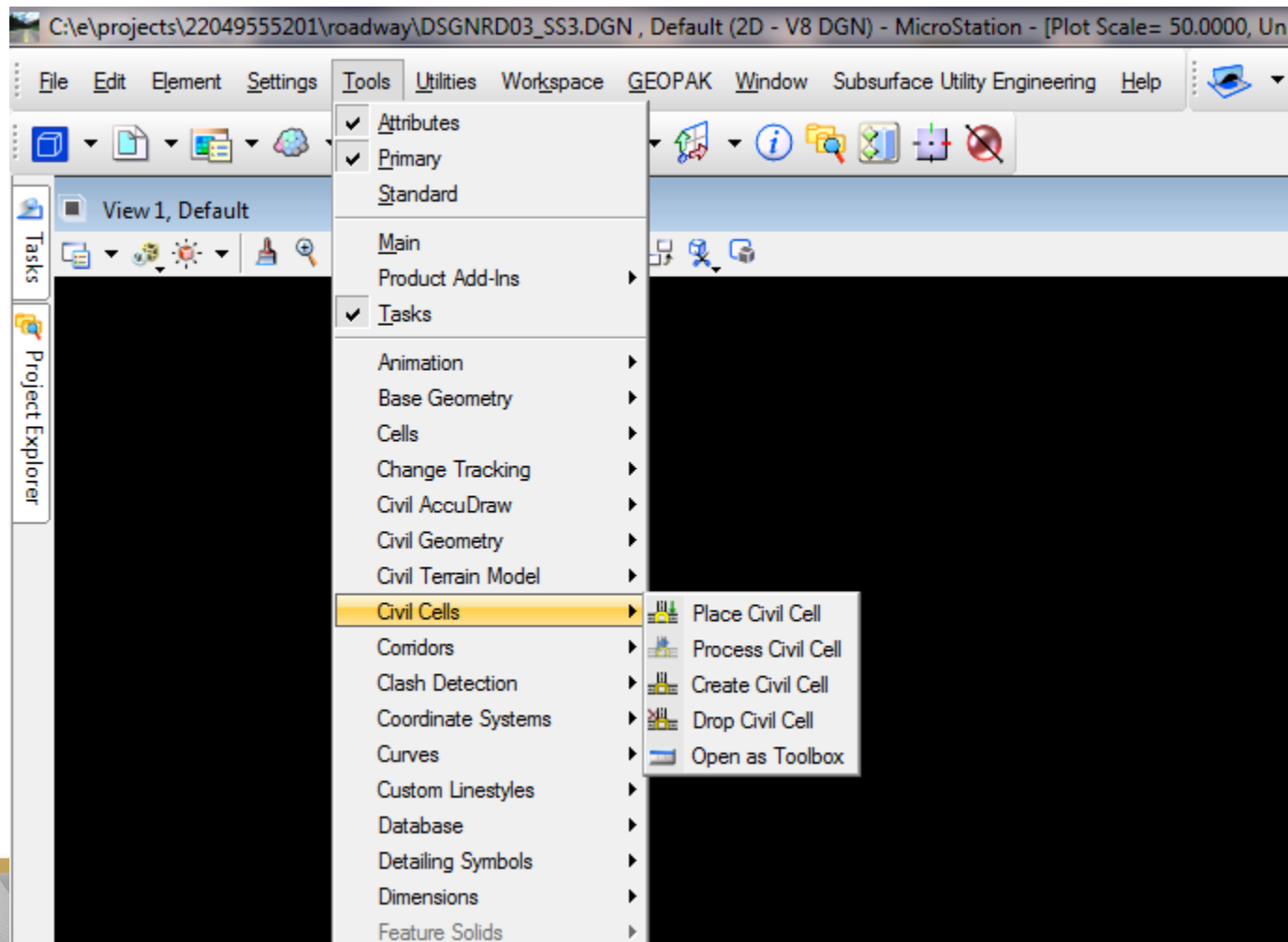
Innovative Solutions for tomorrow's transportation needs

Tools – Civil Geometry



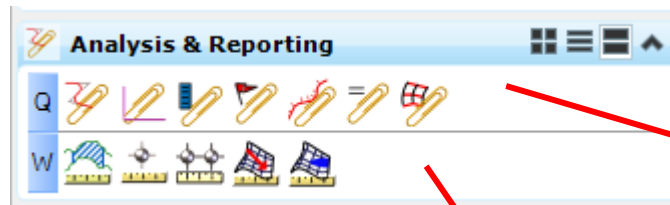
Innovative Solutions for tomorrow's transportation needs

Tools – Civil Cells

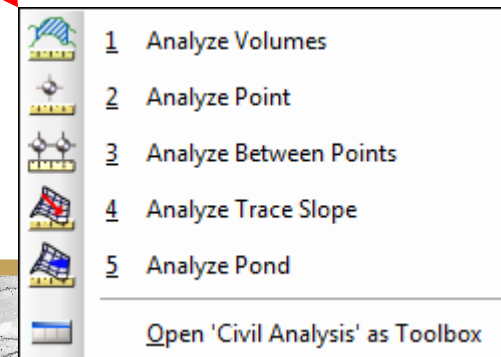
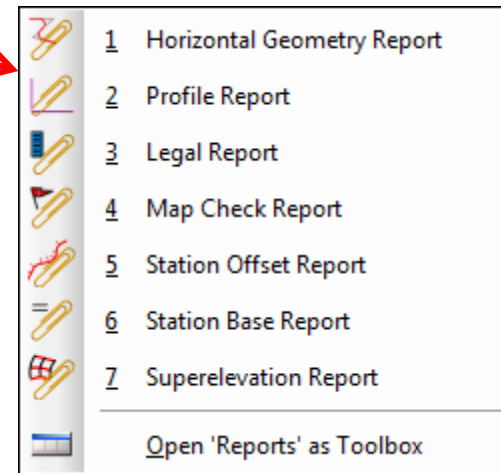


Innovative Solutions for tomorrow's transportation needs

Civil Tools – Analysis and Reporting:

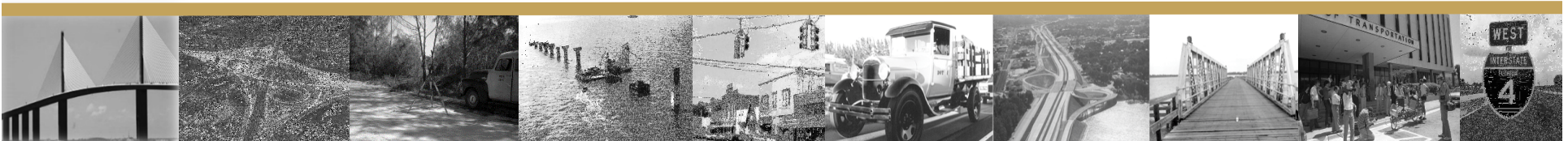
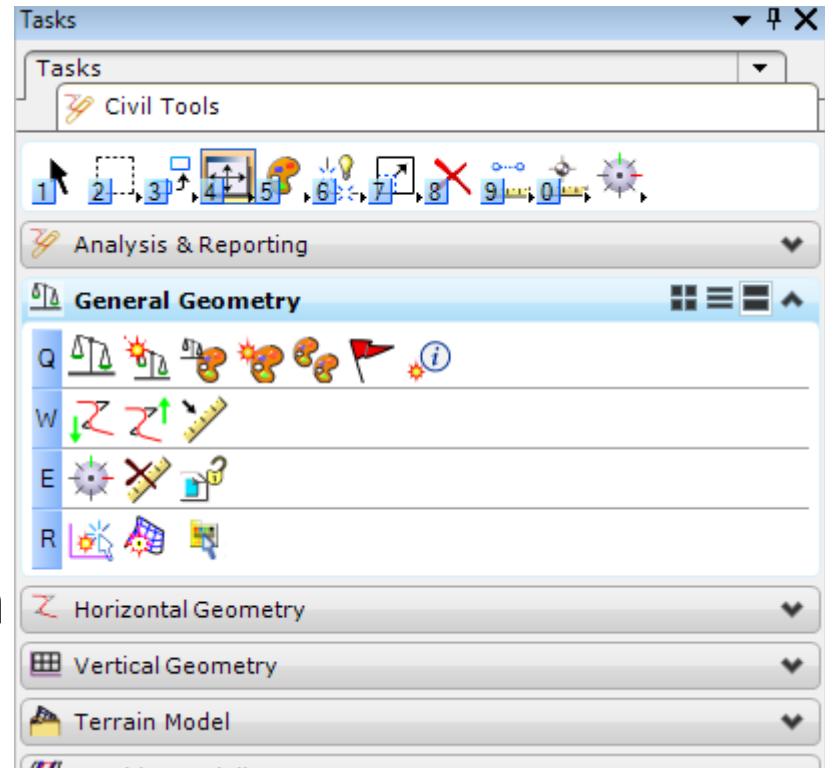


◆ Horizontal Reports



Civil Tools - General Geometry:

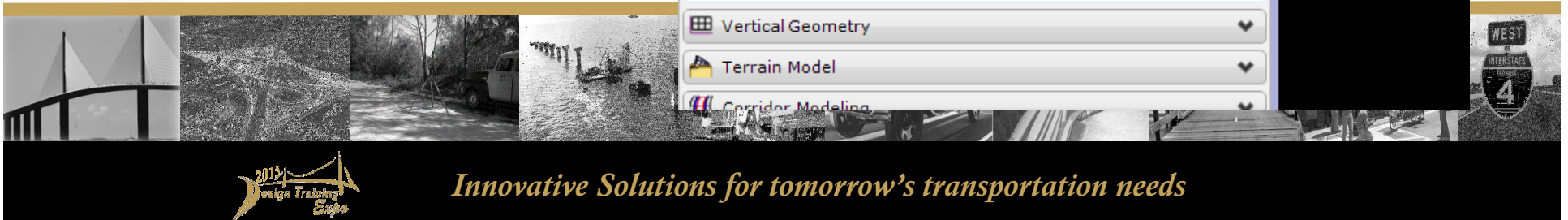
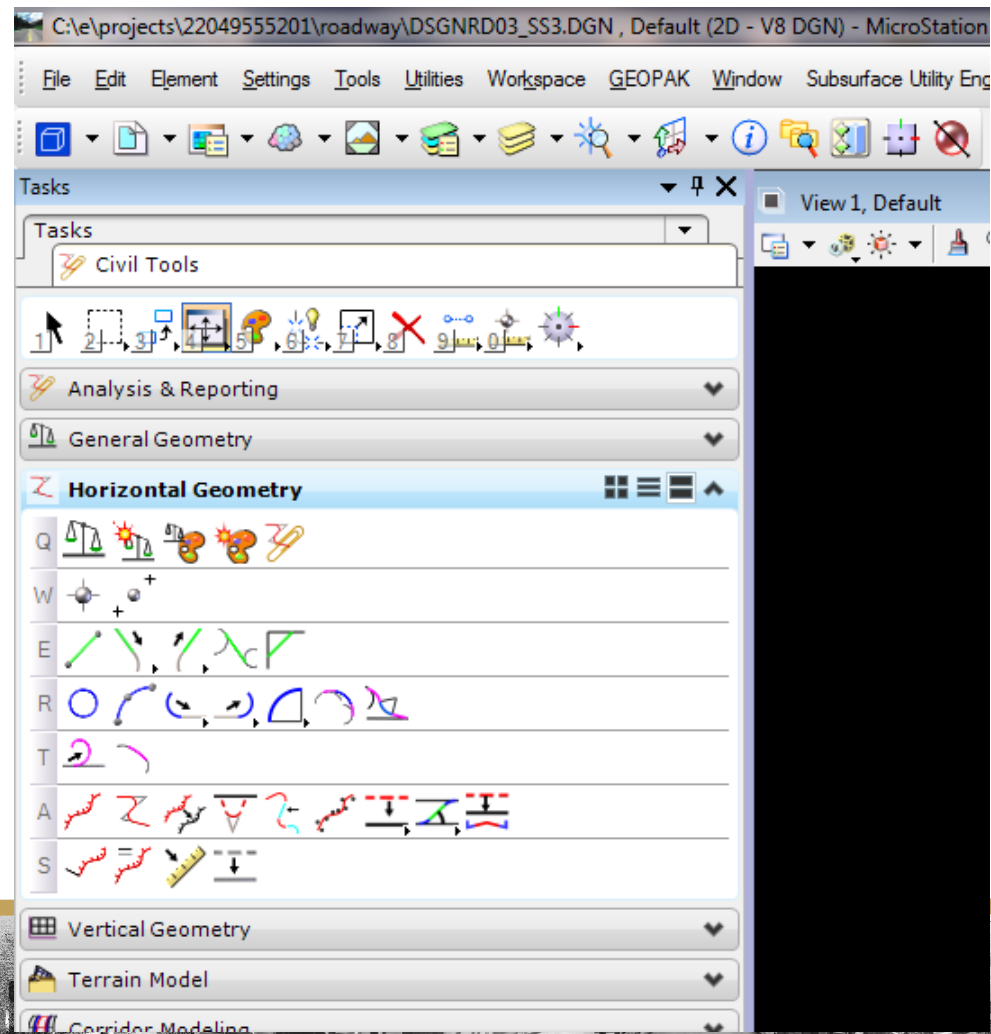
- Geometry Toggles
 - [Feature Definitions](#)
 - [Design Standards](#)
 - [Civil Message Center](#)
- [Import/Export](#)
- [Create Civil Rule](#)
- [Civil Accudraw](#)
- Set Active Profile/Terrain



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Civil Tools – Horizontal Geometry:

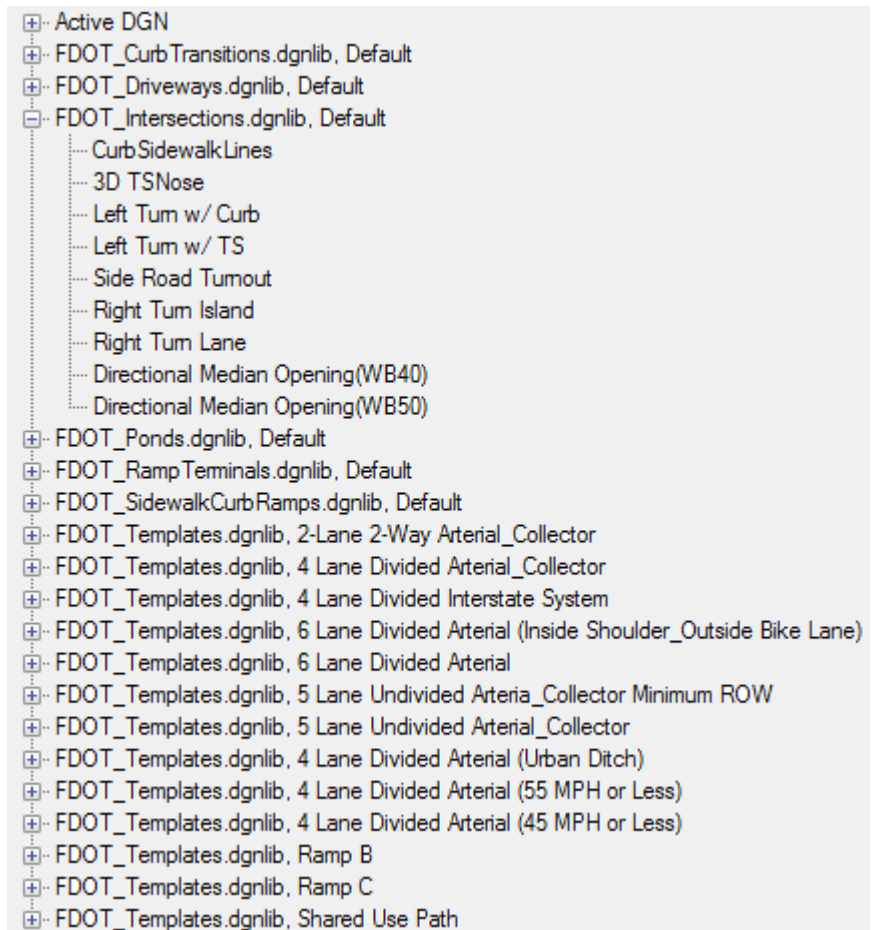
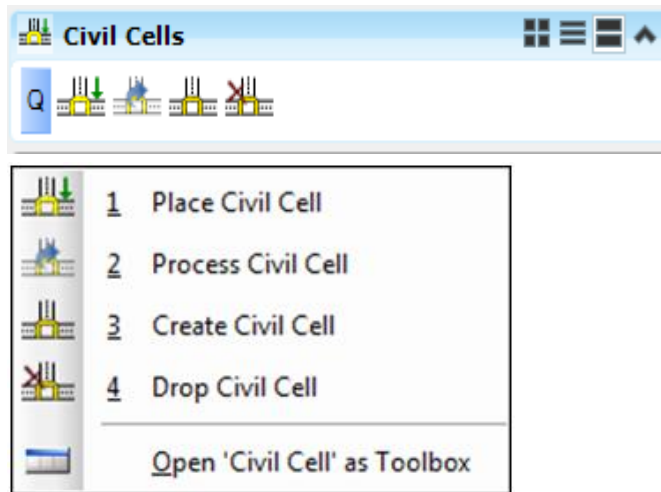
- [Points](#)
- [Lines; Simple, To, From](#)
- [Arcs Between Elements](#)
- [Offsets and Tapers](#)
- [Complex by Elements](#)
- [Modify Civil Elements](#)



Innovative Solutions for tomorrow's transportation needs

Civil Tools – Civil Cells

- Place Civil Cells

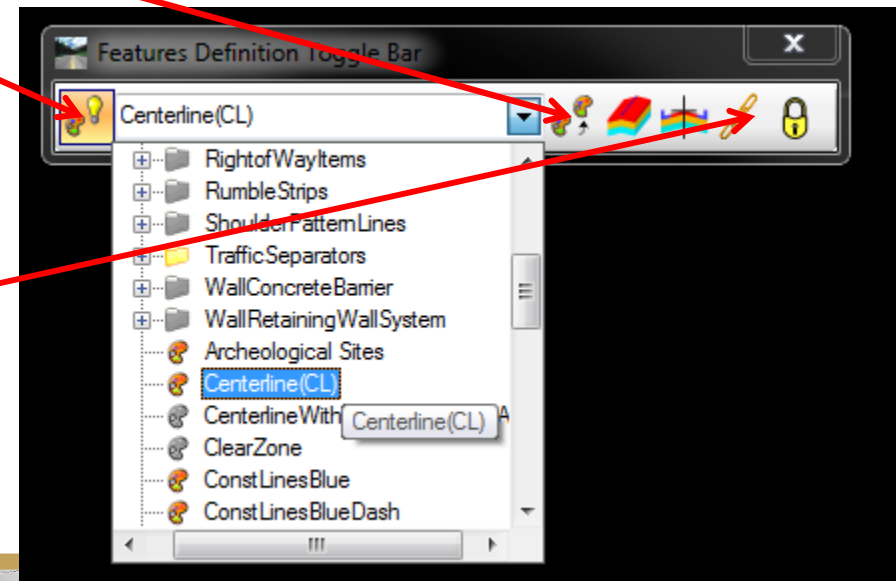
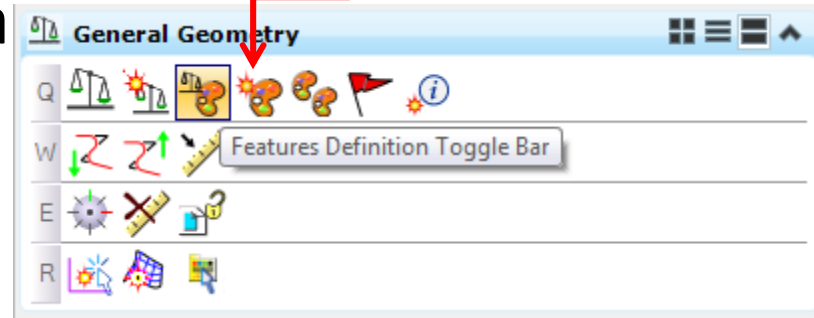


Geometry Toggles

Feature Definition Toggle Bar

- Match
- Use Active
- Chain Feature

Set Feature

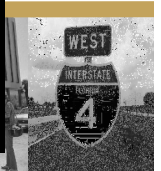
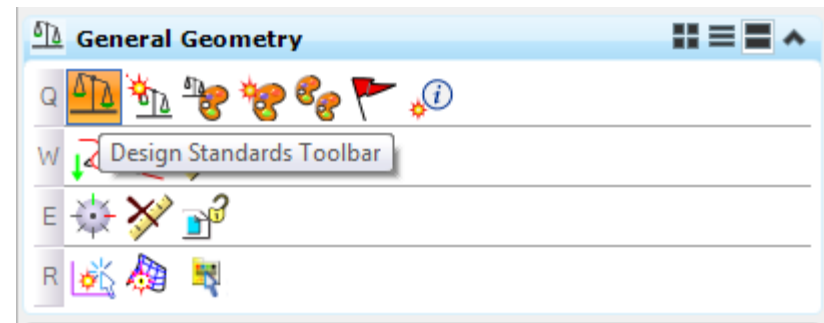


Innovative Solutions for tomorrow's transportation needs

Geometry Toggles

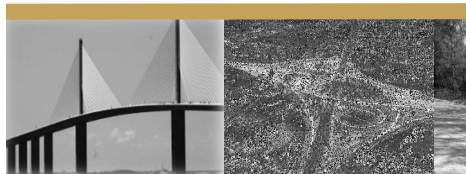
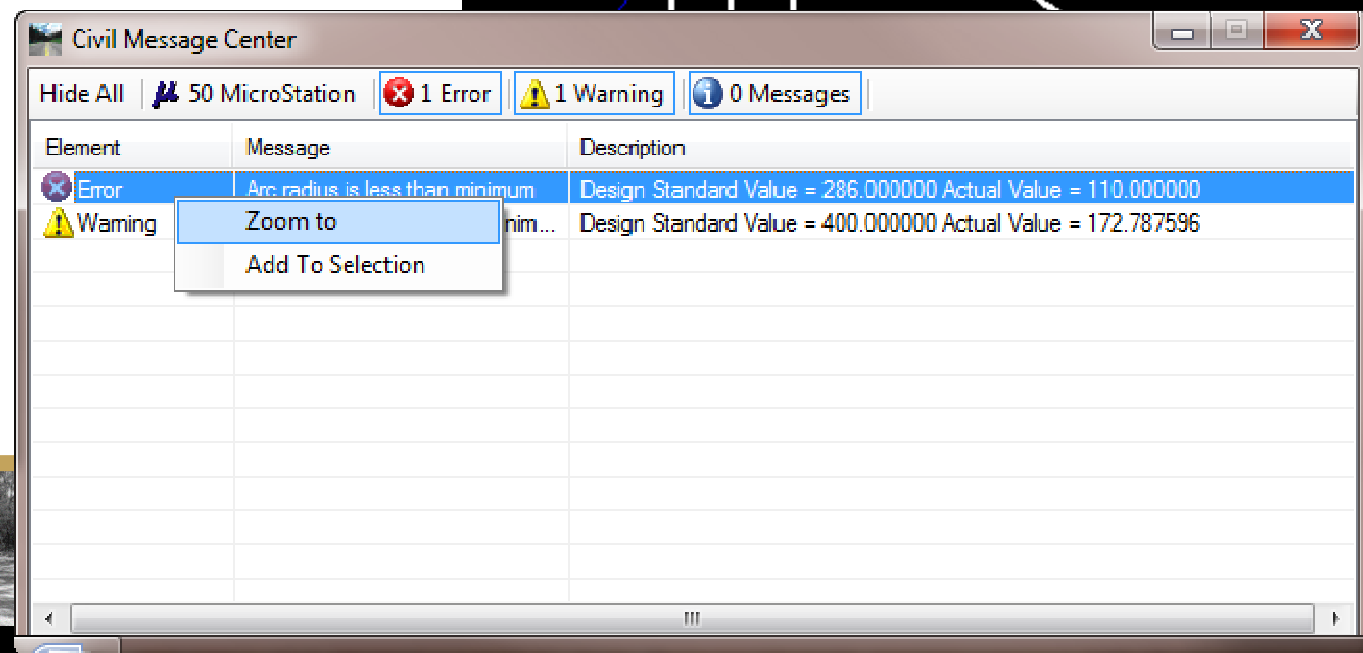
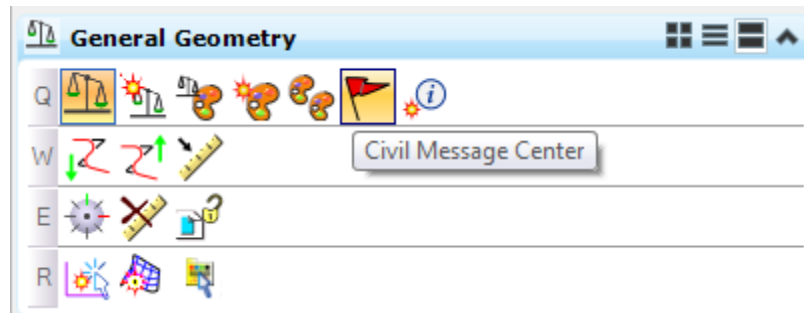
Design Standards

- Toolbar
- Match
- Set Active



Innovative Solutions for tomorrow's transportation needs

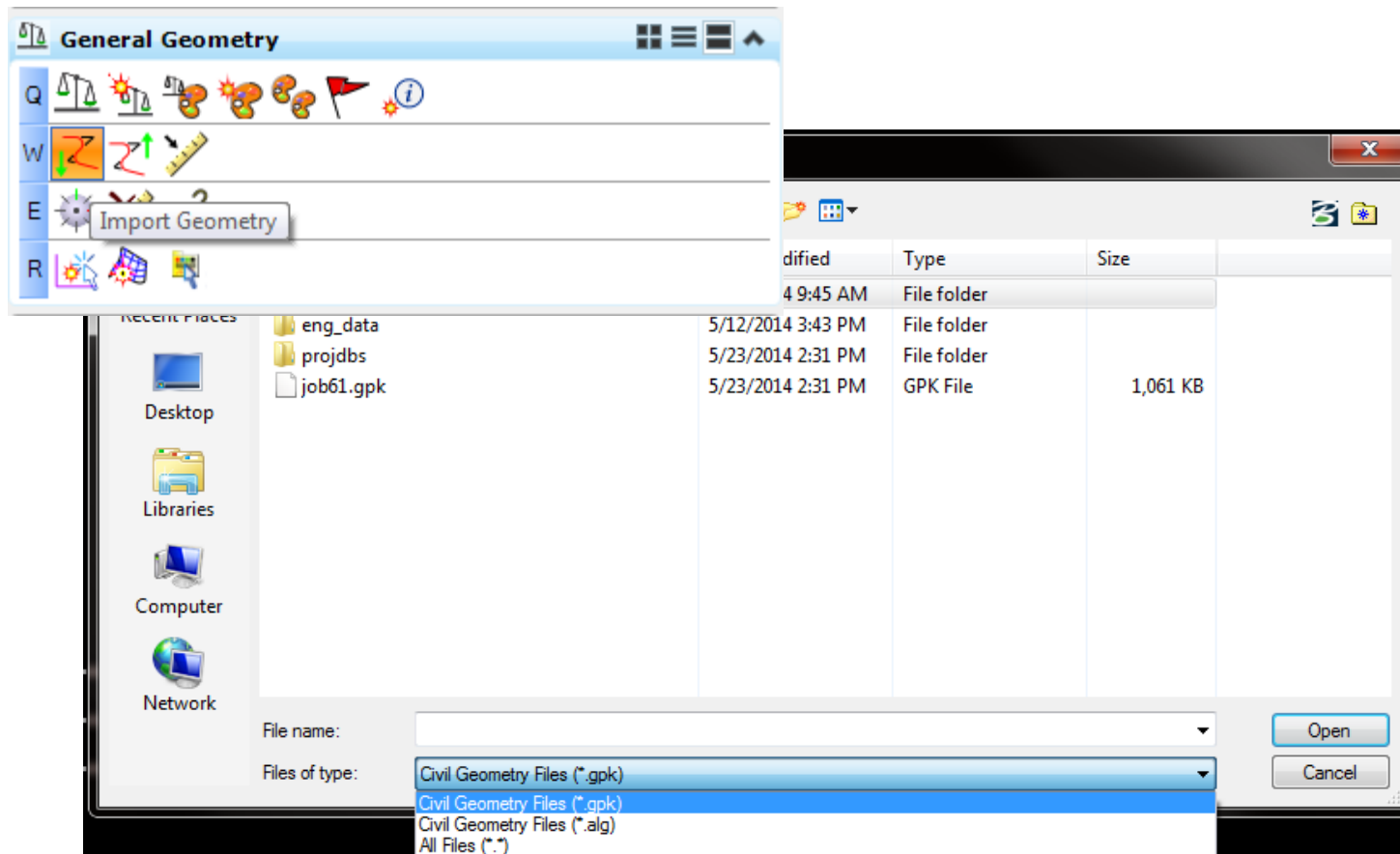
Civil Message Center



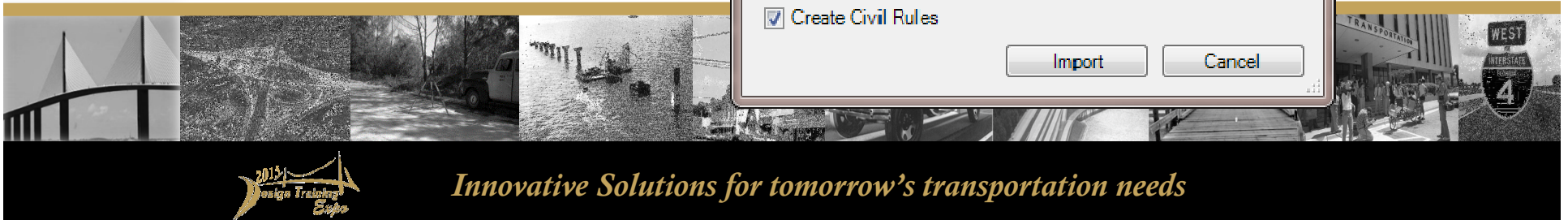
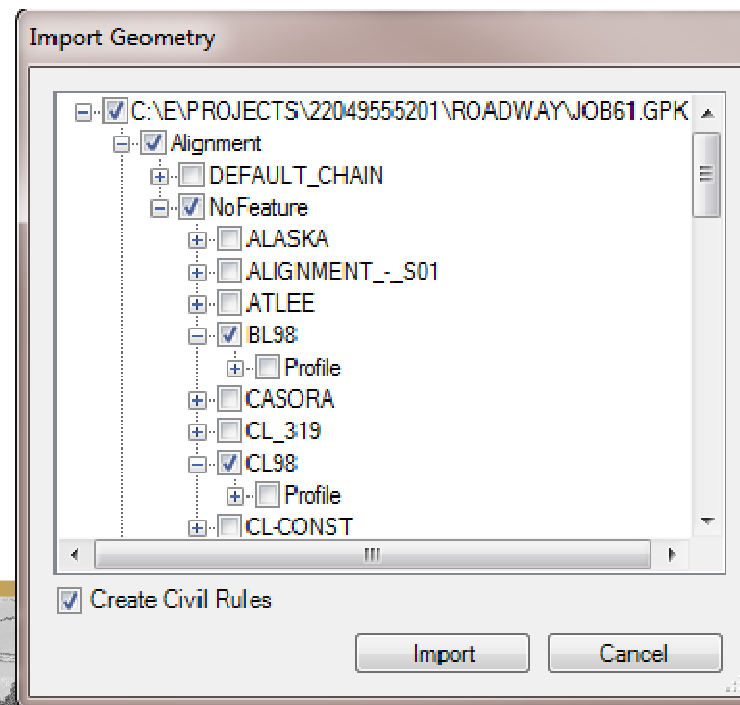
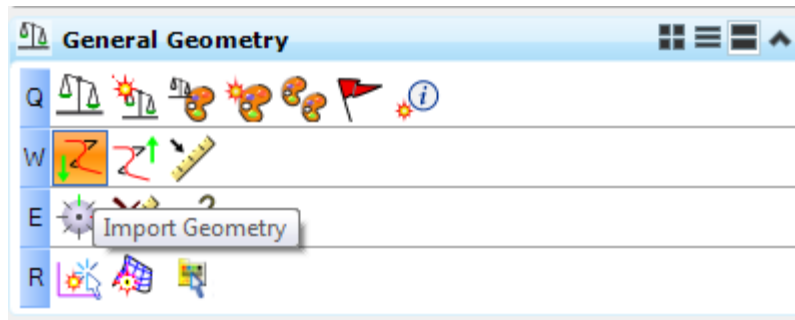
Innovative Solutions for tomorrow's transportation needs



Import/Export

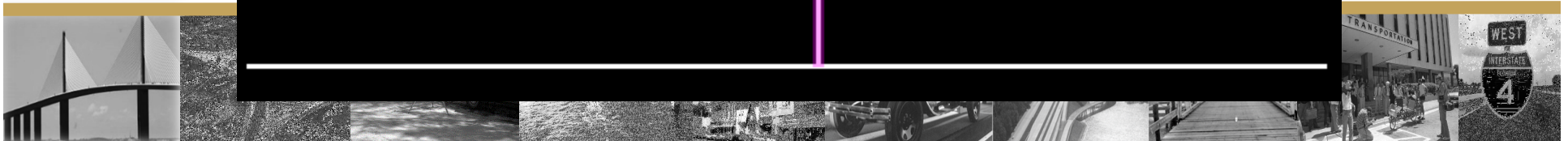
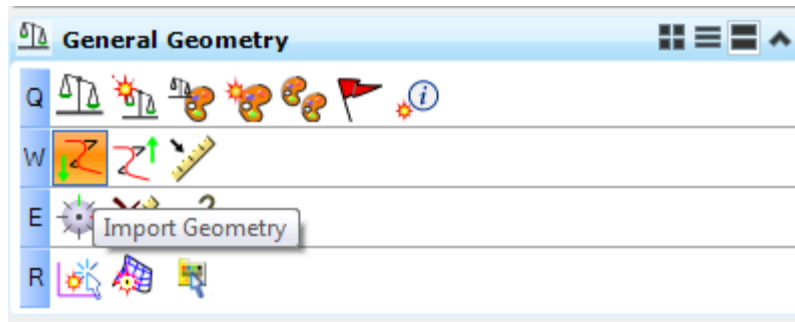


Import/Export



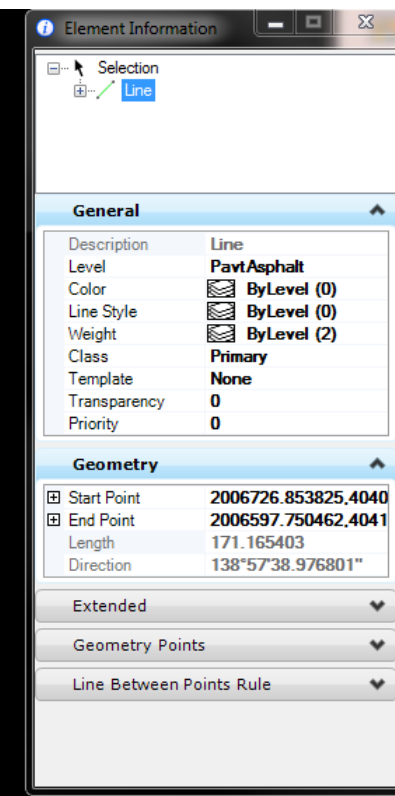
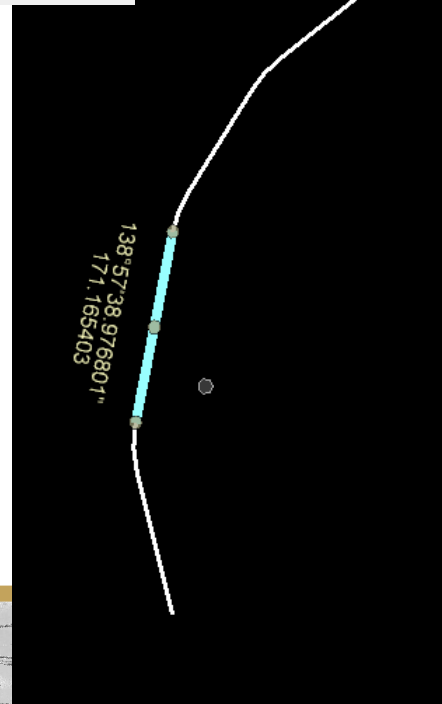
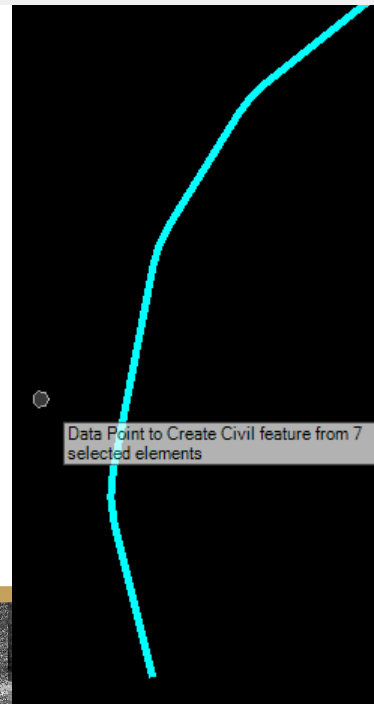
Innovative Solutions for tomorrow's transportation needs

Import/Export

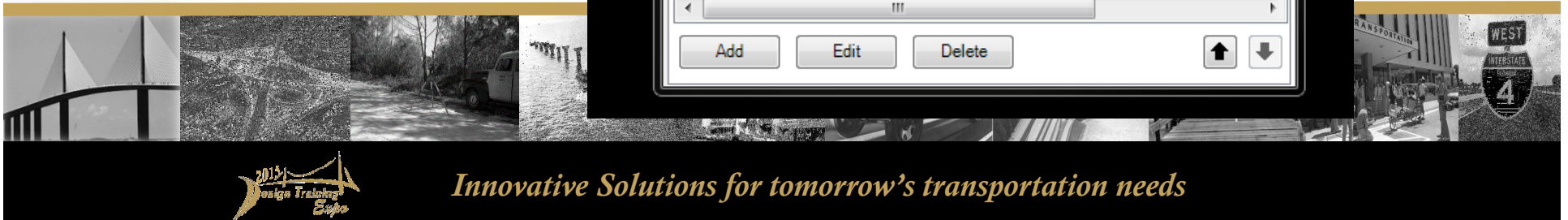
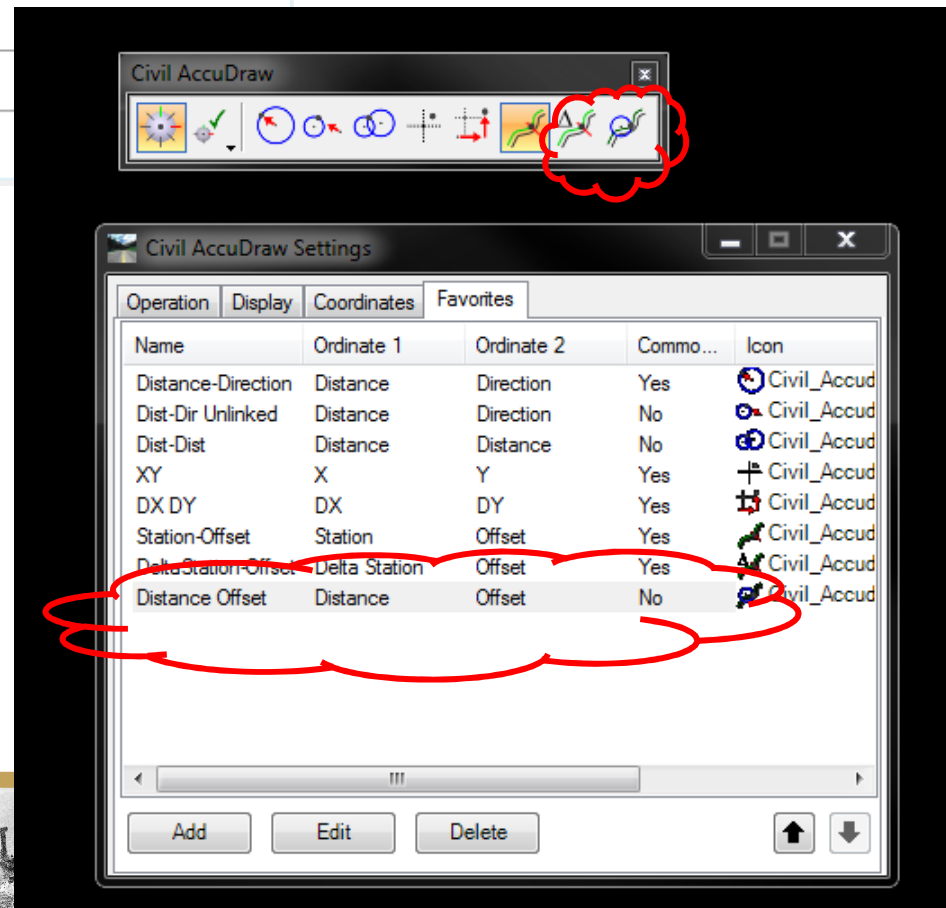
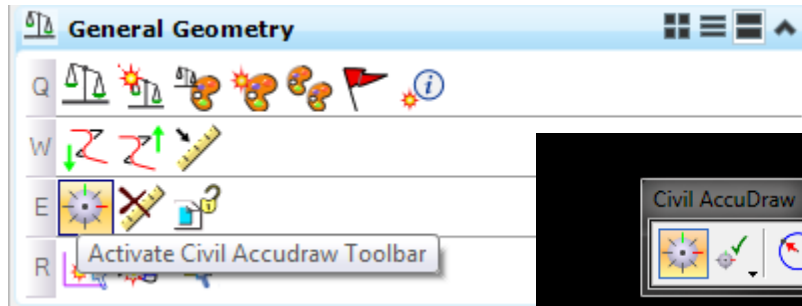


Innovative Solutions for tomorrow's transportation needs

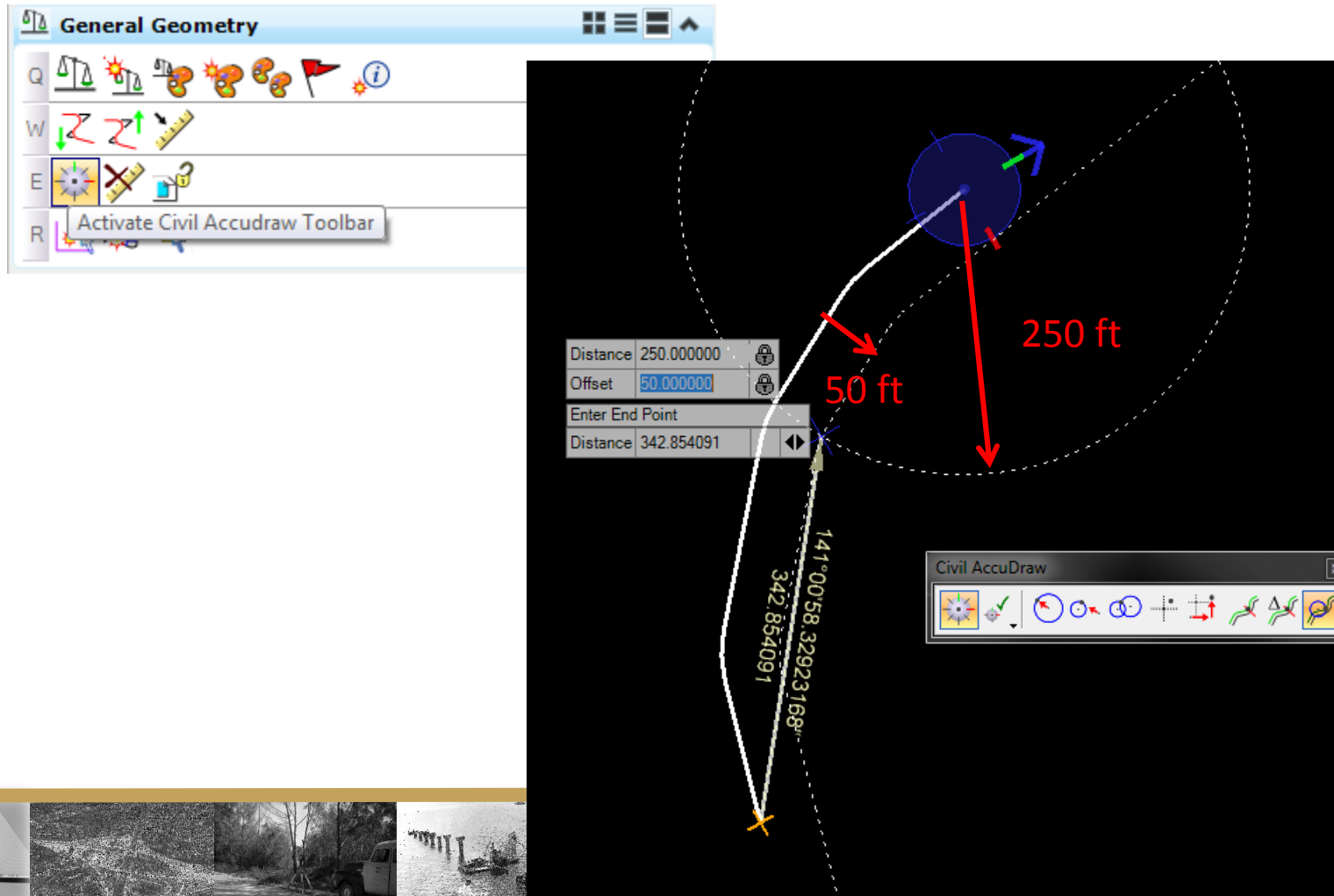
Create Civil Rule



Civil Accudraw



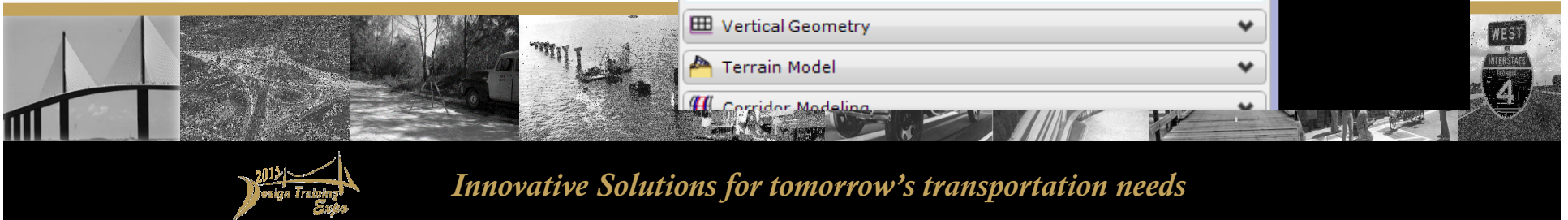
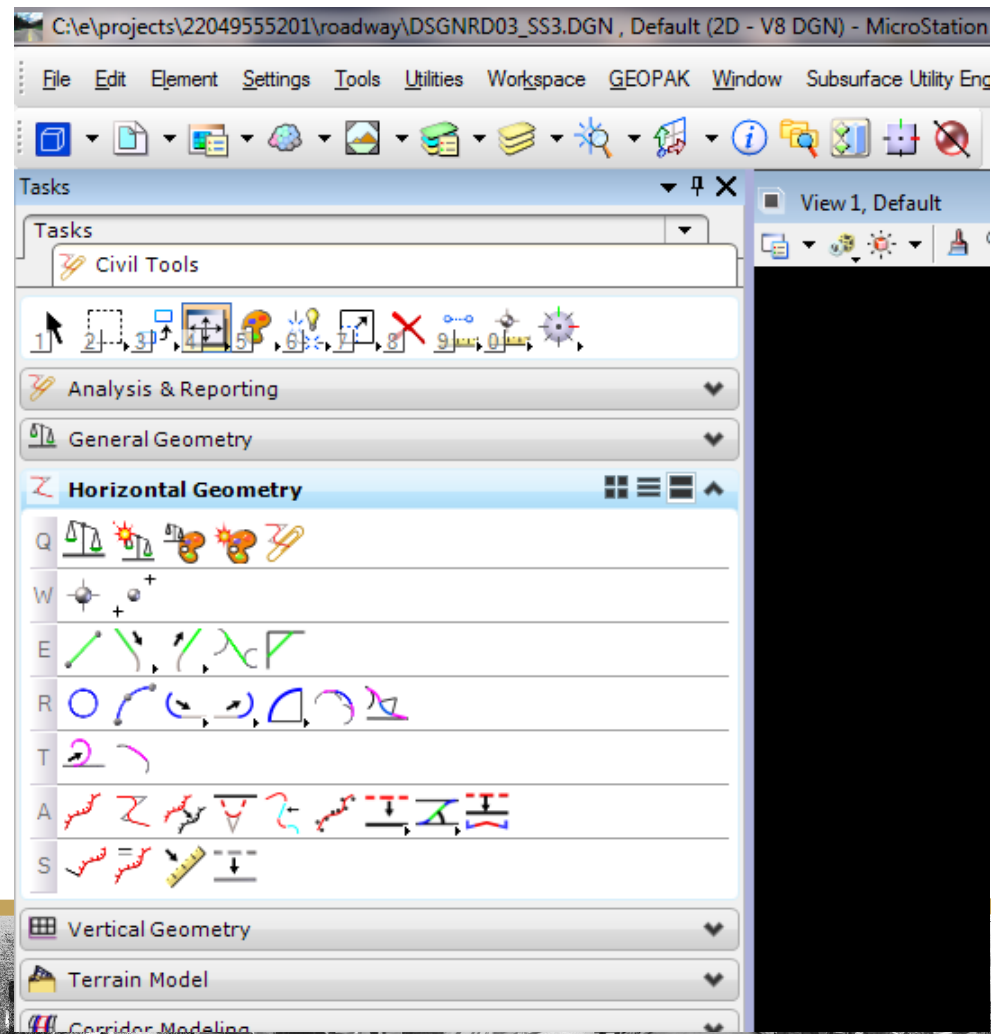
Civil Accudraw



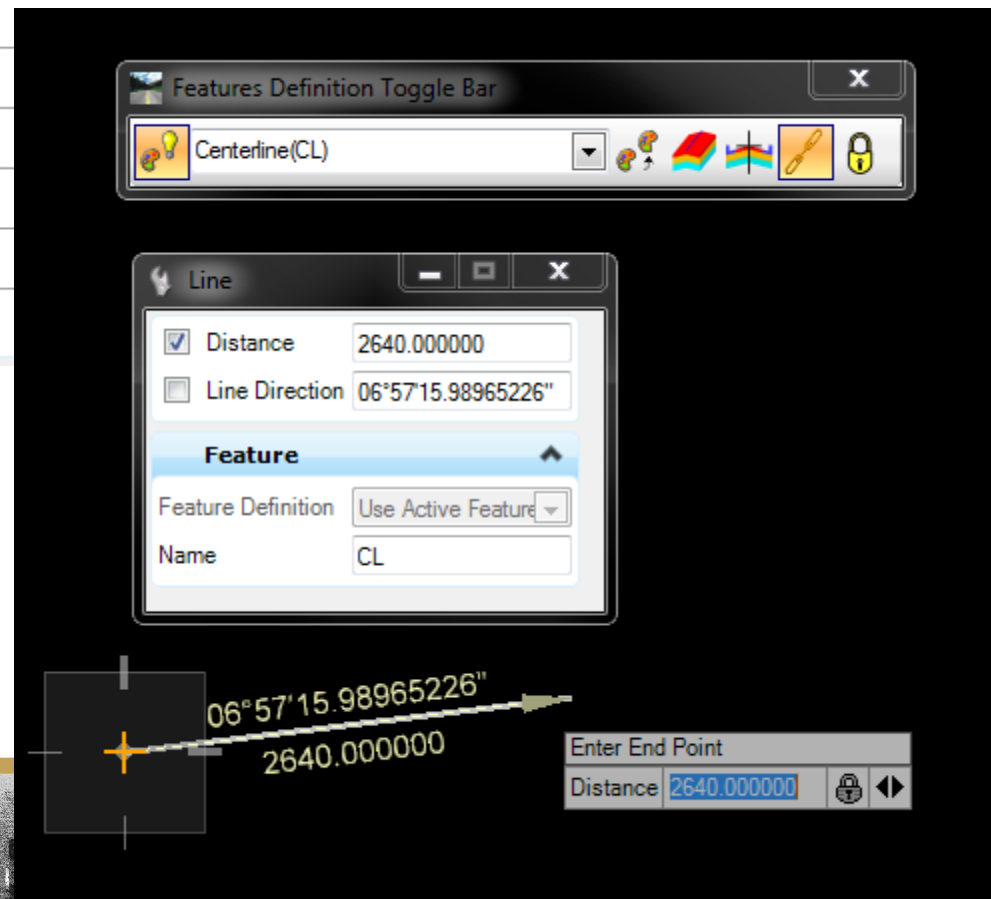
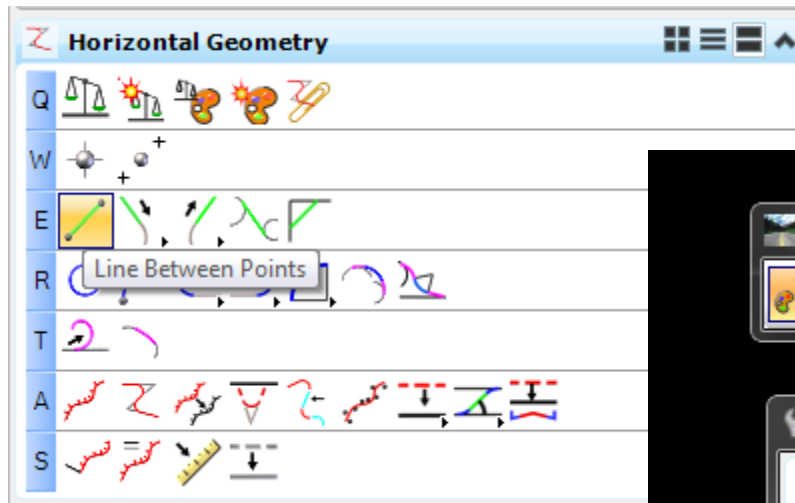
Innovative Solutions for tomorrow's transportation needs

Civil Tools – Horizontal Geometry:

- [Points](#)
- [Lines; Simple, To, From](#)
- [Arcs Between Elements](#)
- [Offsets and Tapers](#)
- [Complex by Elements](#)
- [Modify Civil Elements](#)

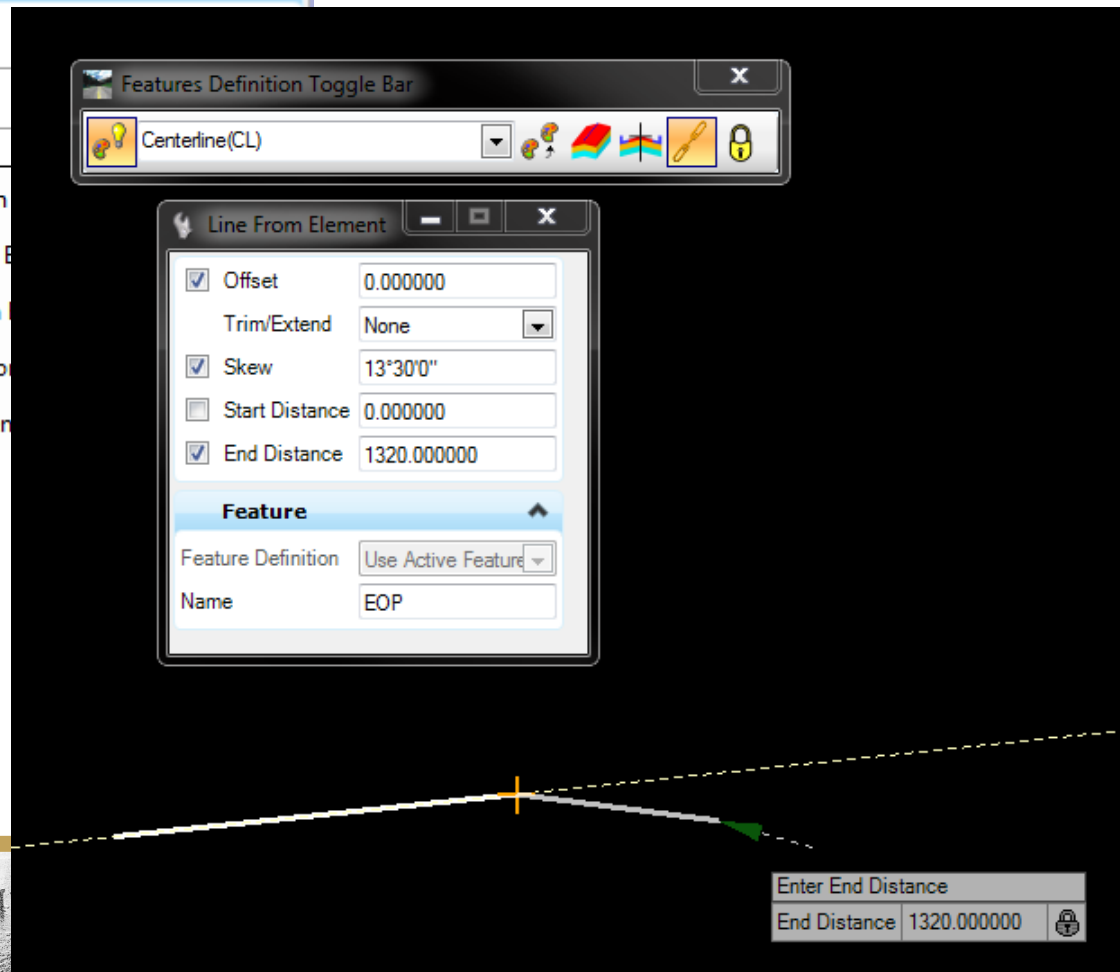
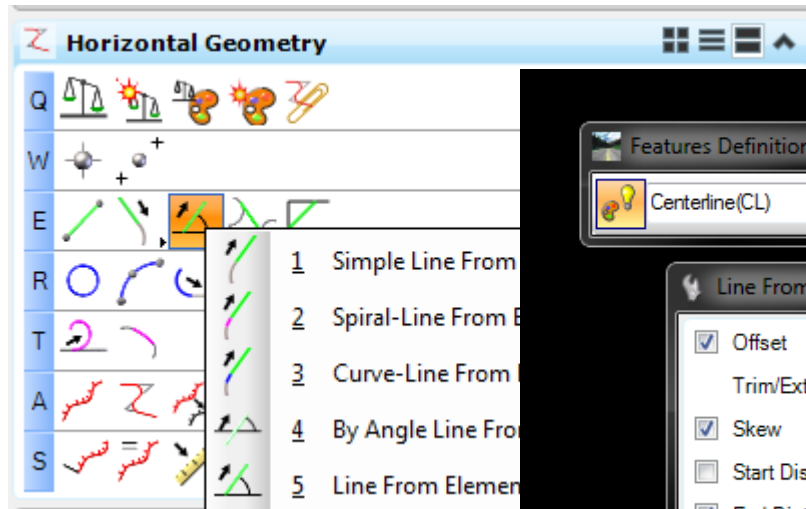


Lines; Simple, To, From

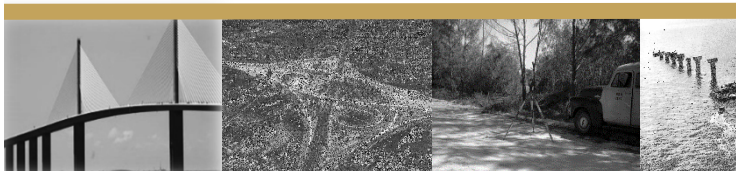
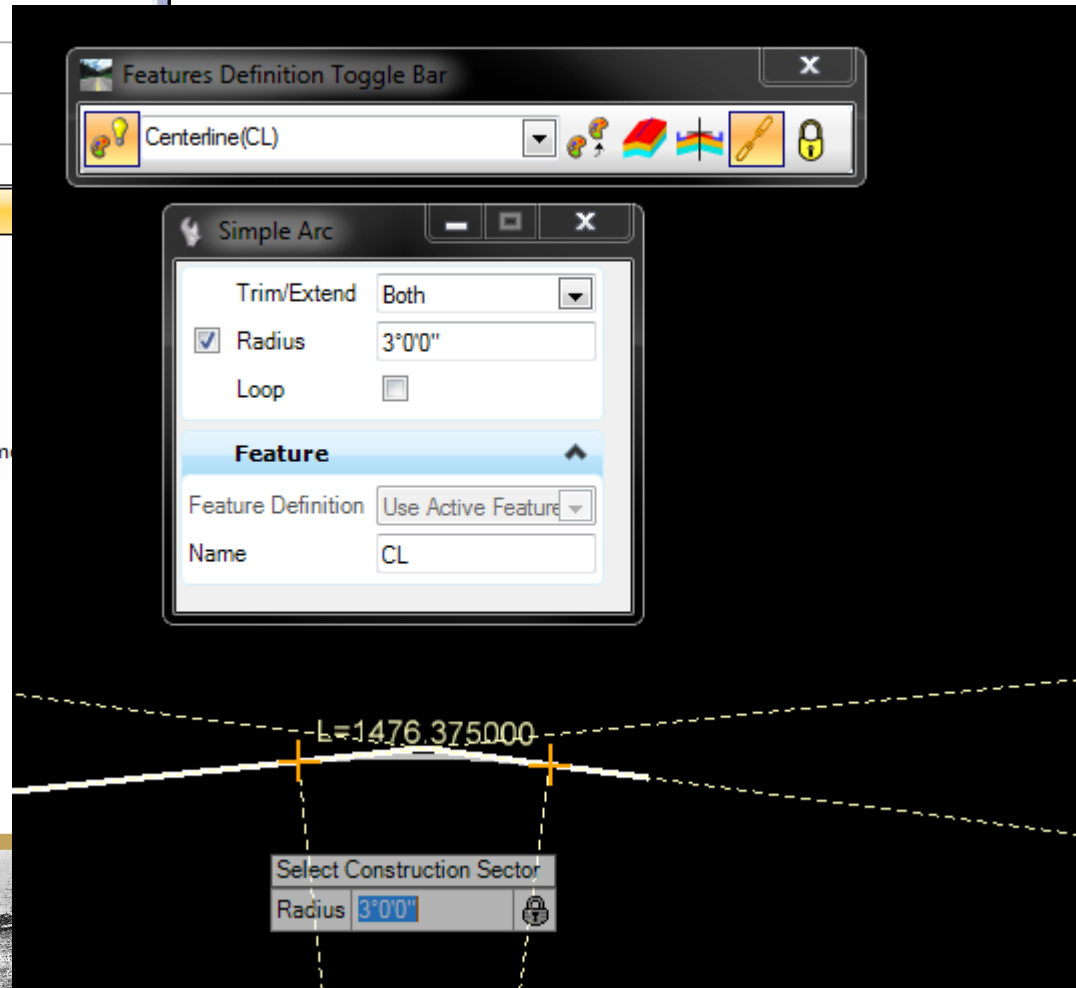
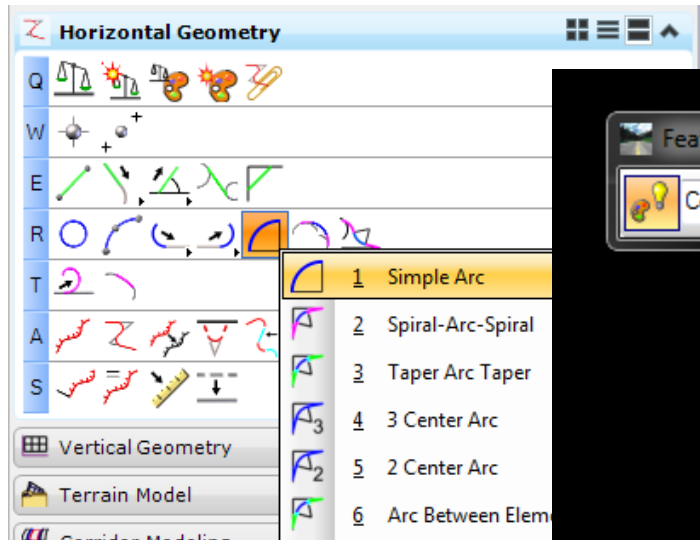


Innovative Solutions for tomorrow's transportation needs

Lines; Simple, To, From



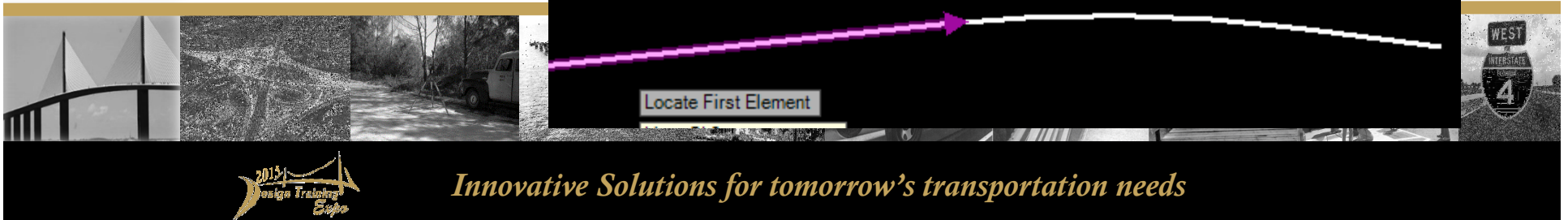
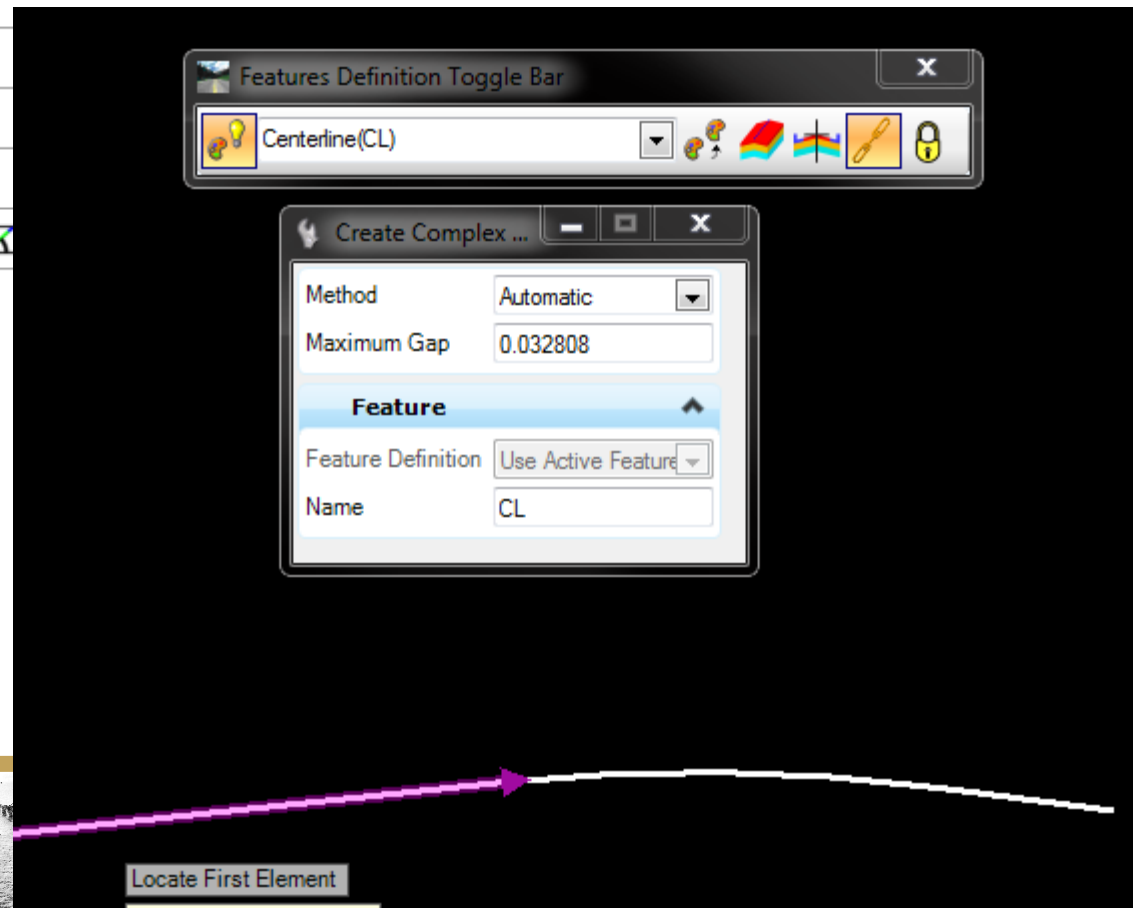
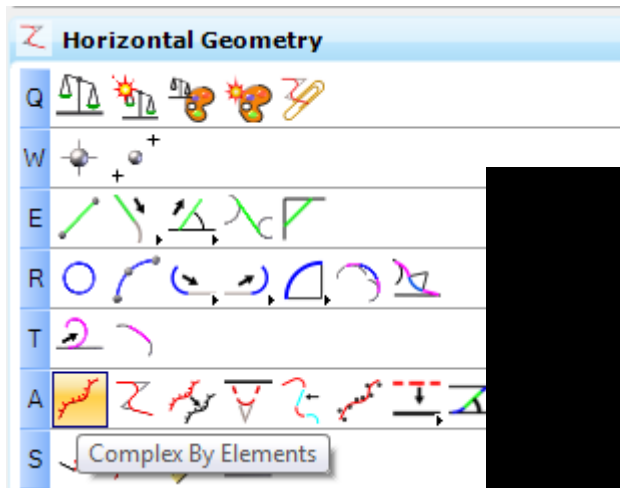
Arcs Between Elements



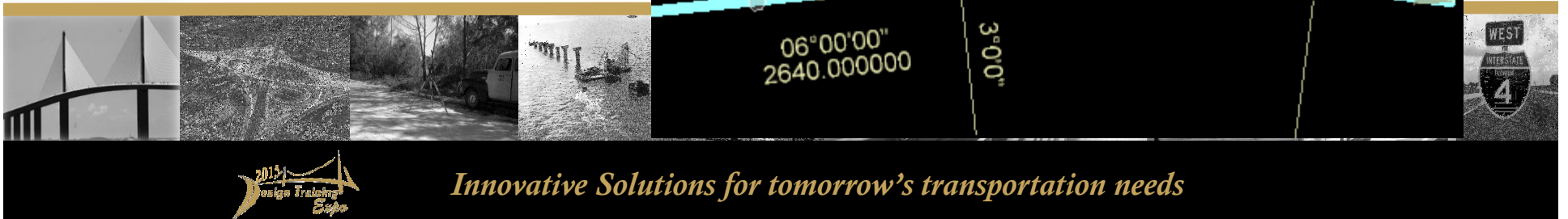
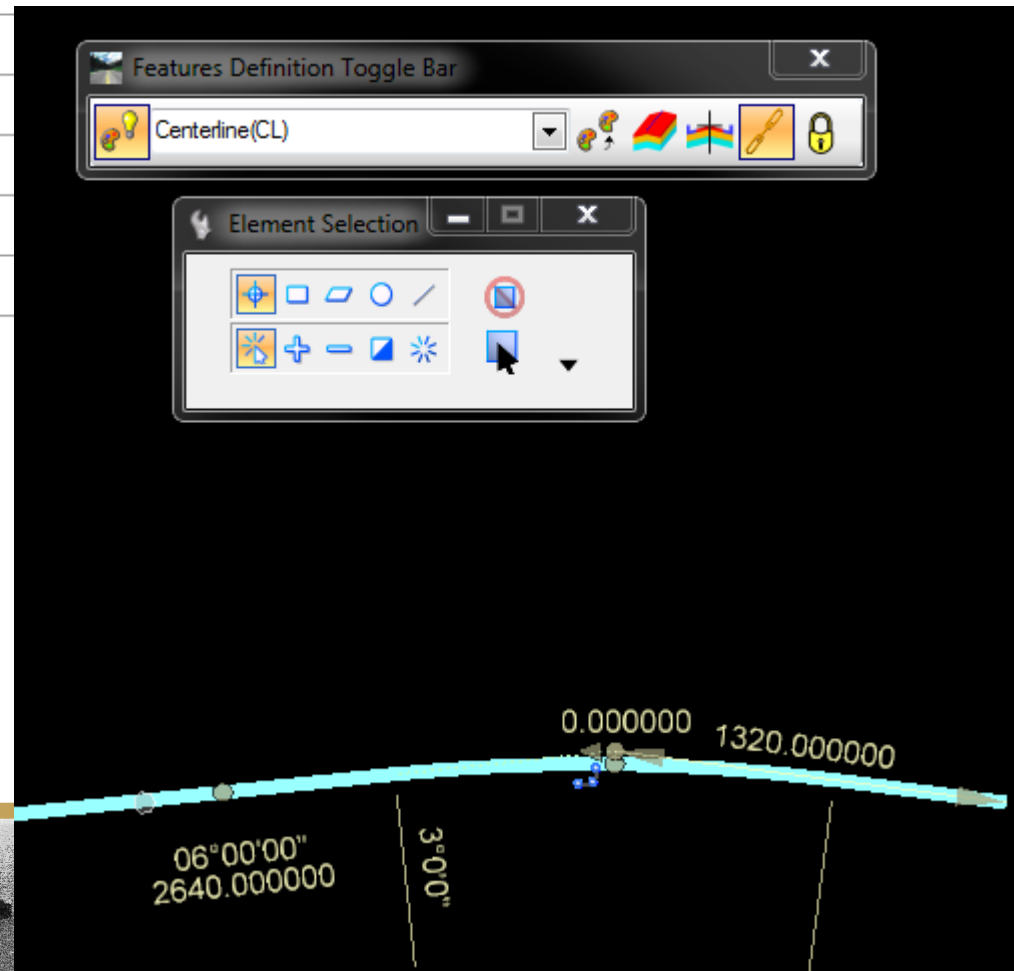
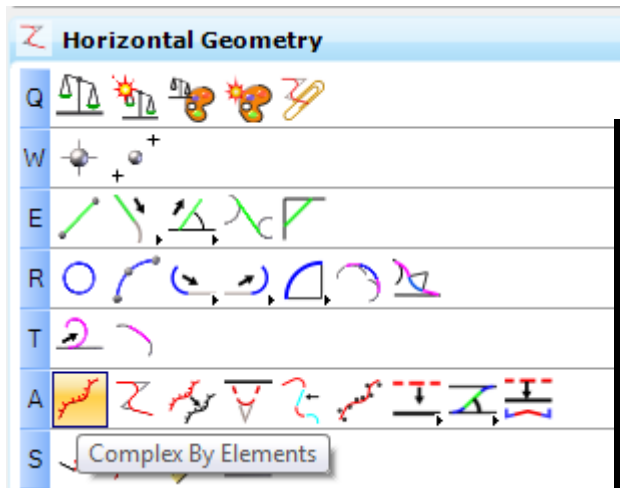
Innovative Solutions for tomorrow's transportation needs



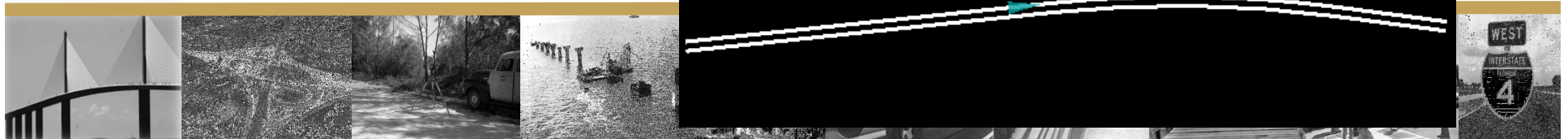
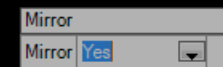
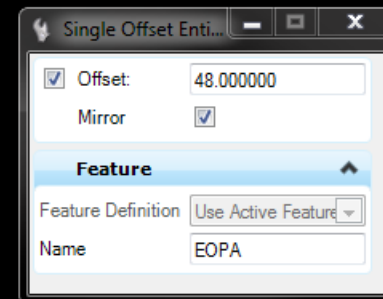
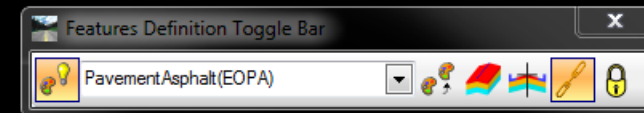
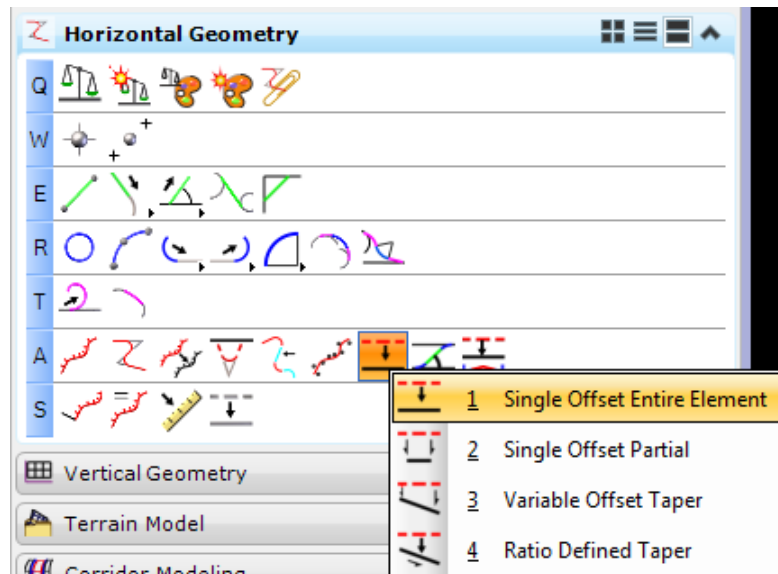
Complex by Elements



Complex by Elements

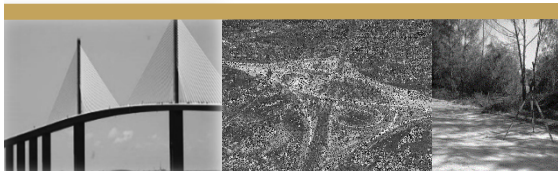
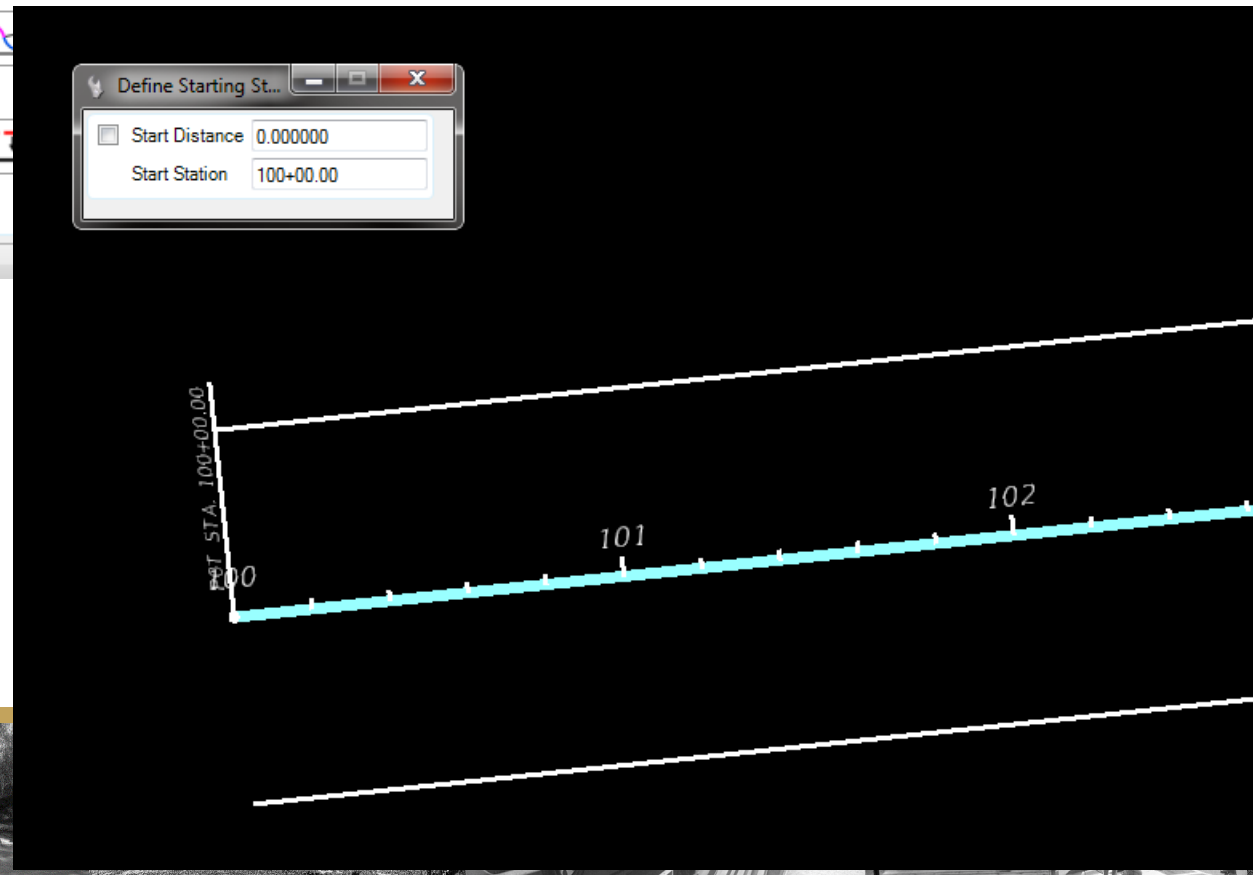
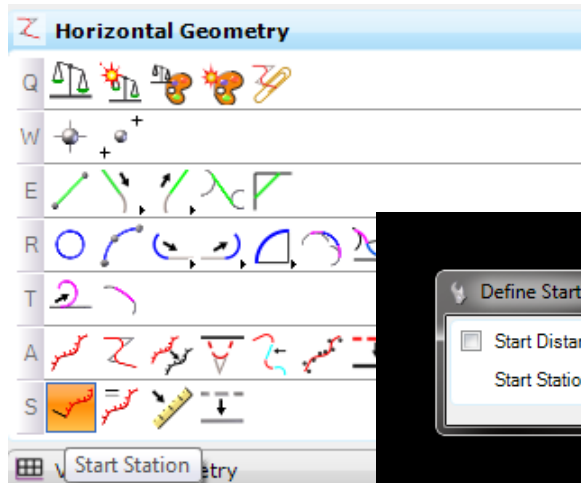


Offsets and Tapers



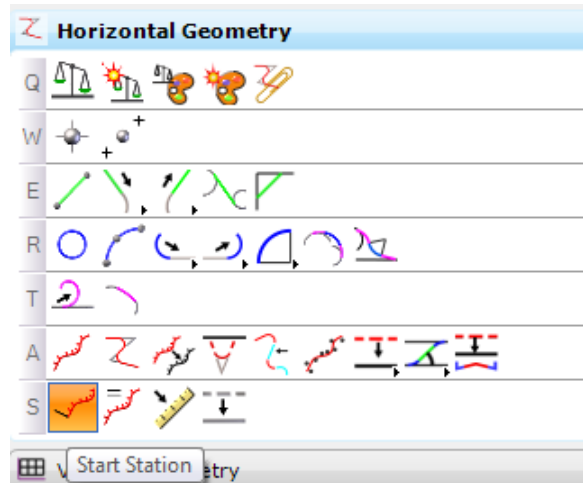
Innovative Solutions for tomorrow's transportation needs

Modify Civil Elements

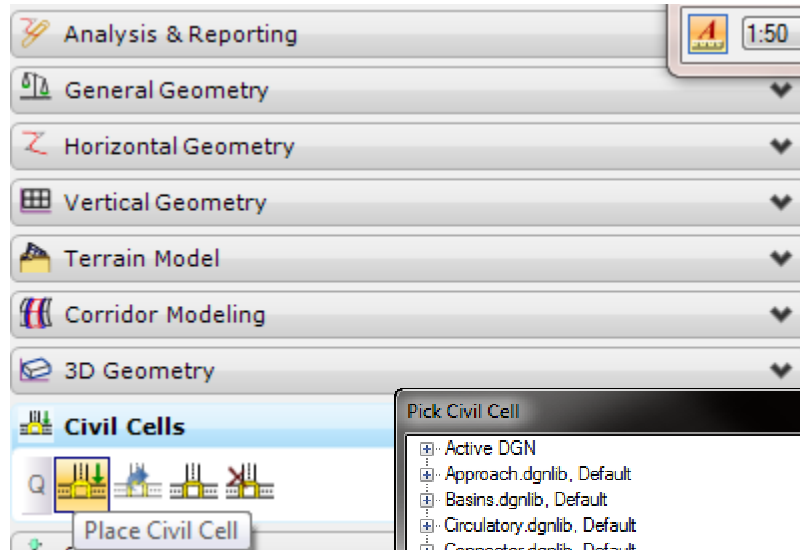


Innovative Solutions for tomorrow's transportation needs

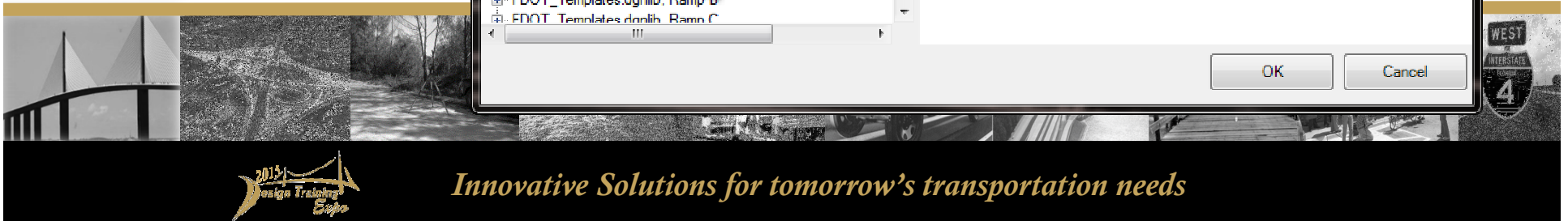
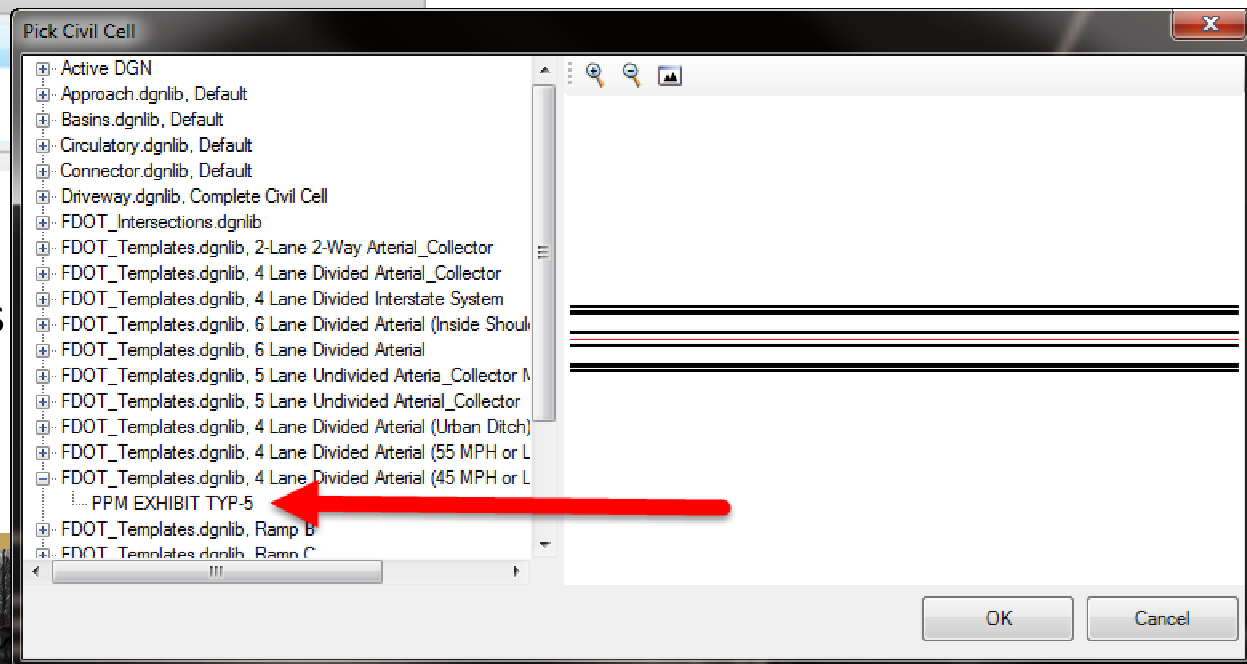
Modify Civil Elements



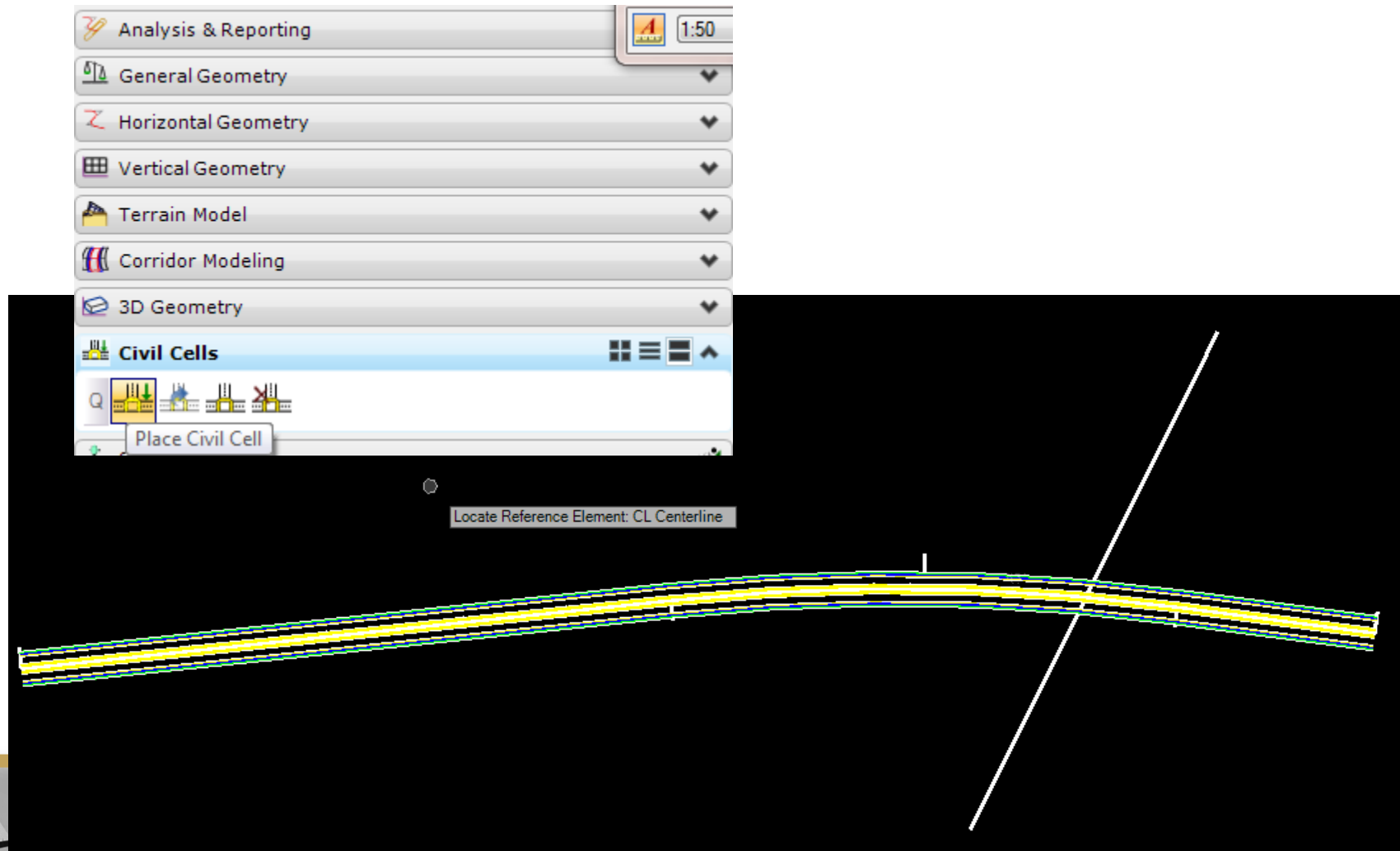
Place Civil Cells



2D Template Lines

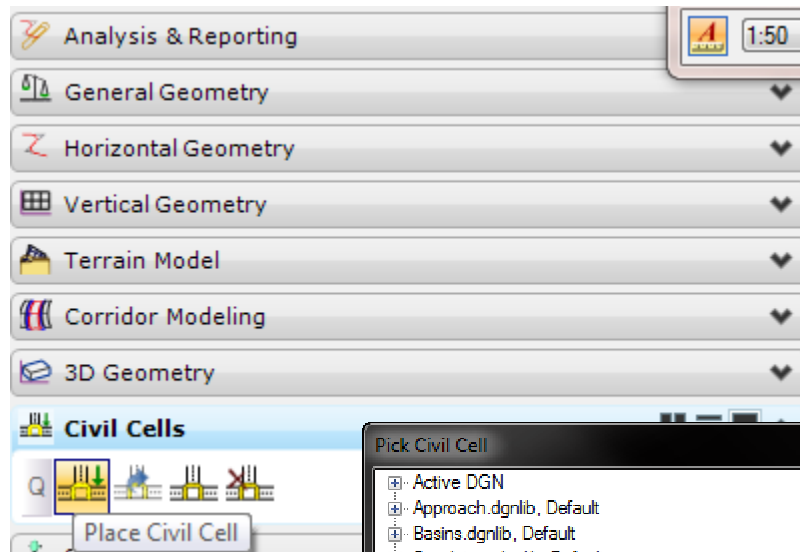


Place Civil Cells

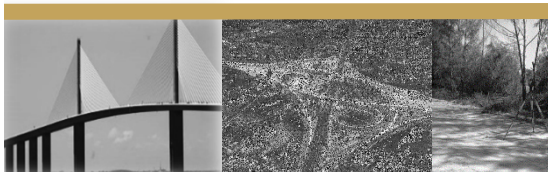
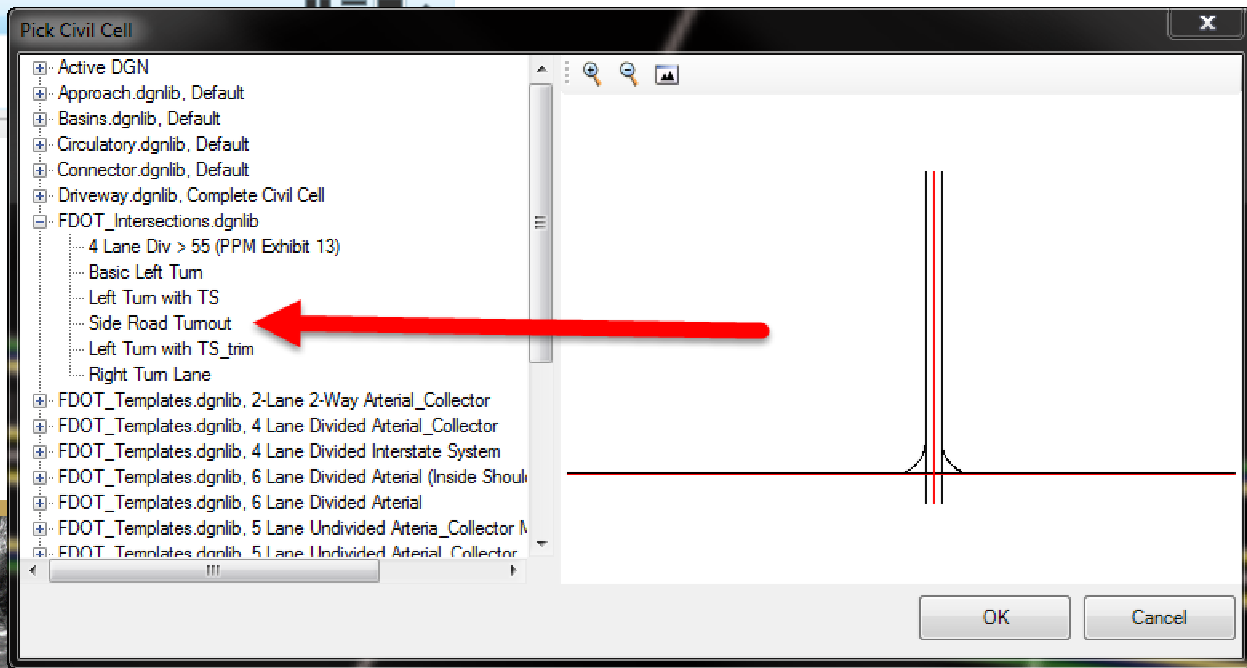


Innovative Solutions for tomorrow's transportation needs

Place Civil Cells



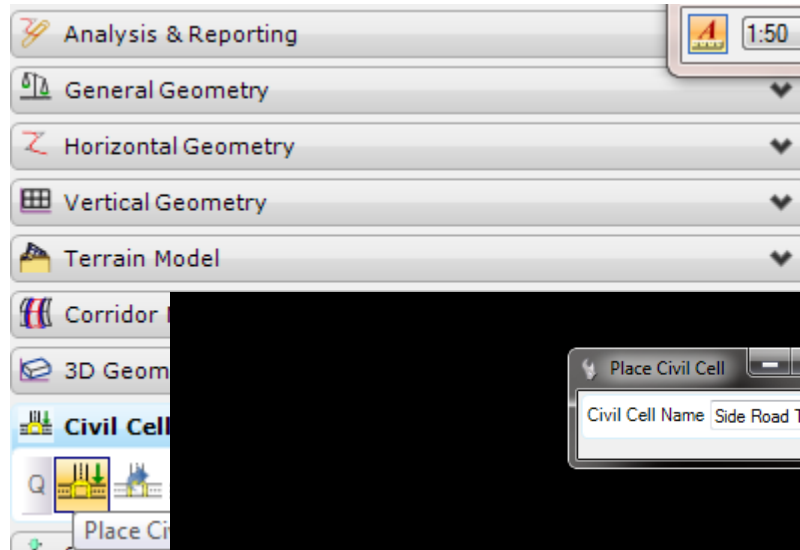
Side Road



Innovative Solutions for tomorrow's transportation needs



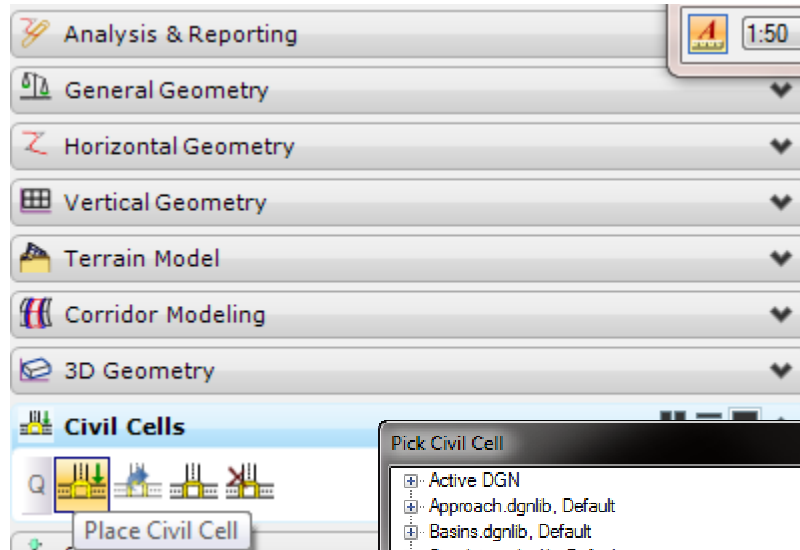
Place Civil Cells



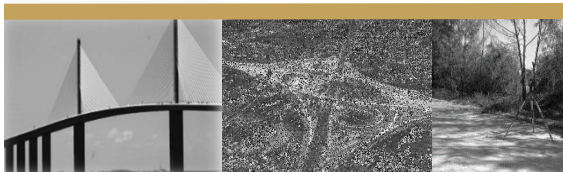
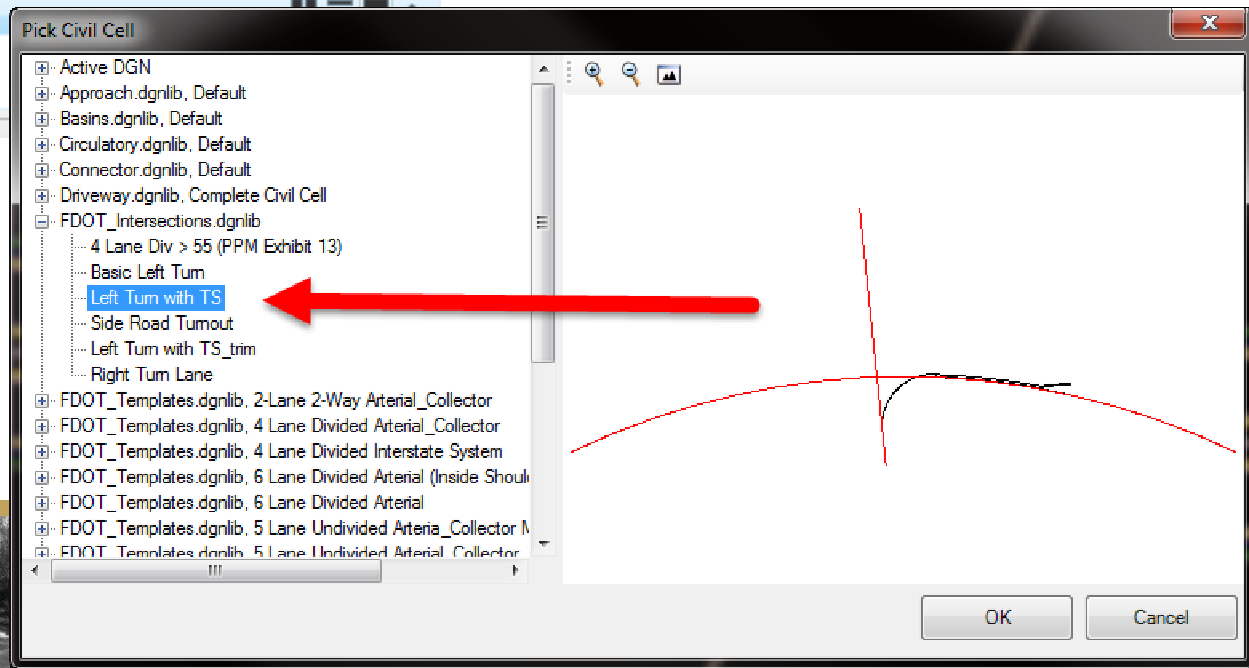
Innovative Solutions for tomorrow's transportation needs



Place Civil Cells



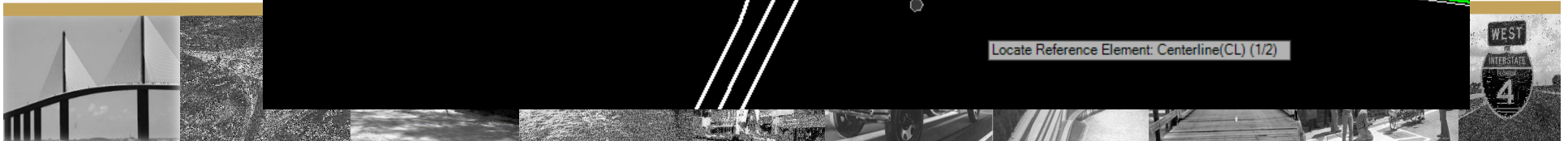
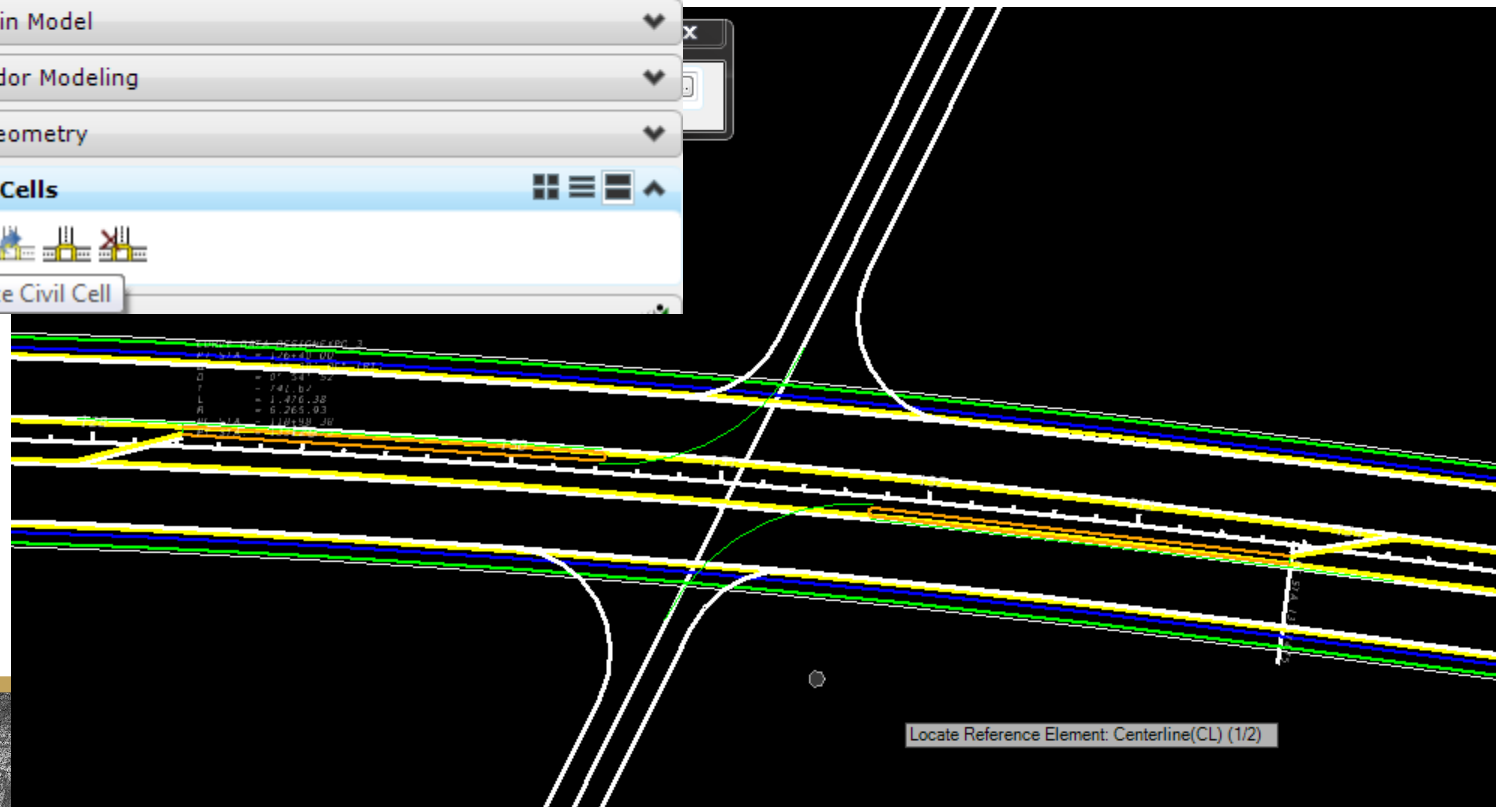
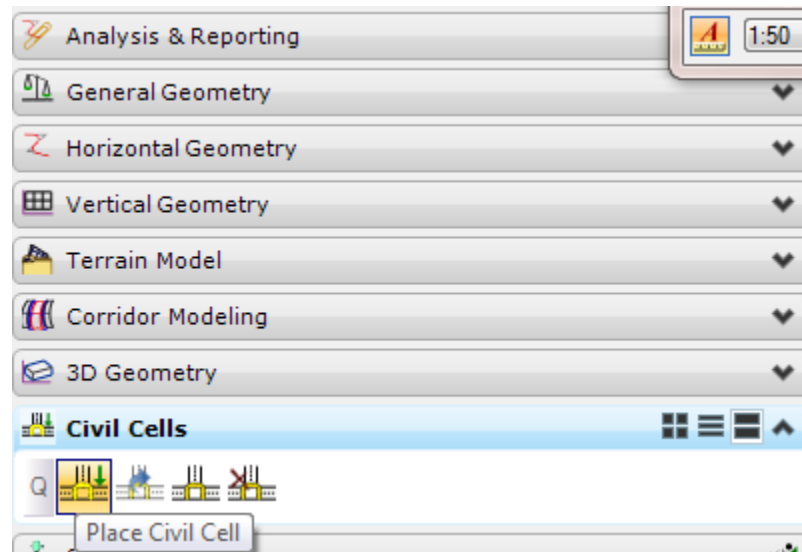
Left Turn w/ TS



Innovative Solutions for tomorrow's transportation needs

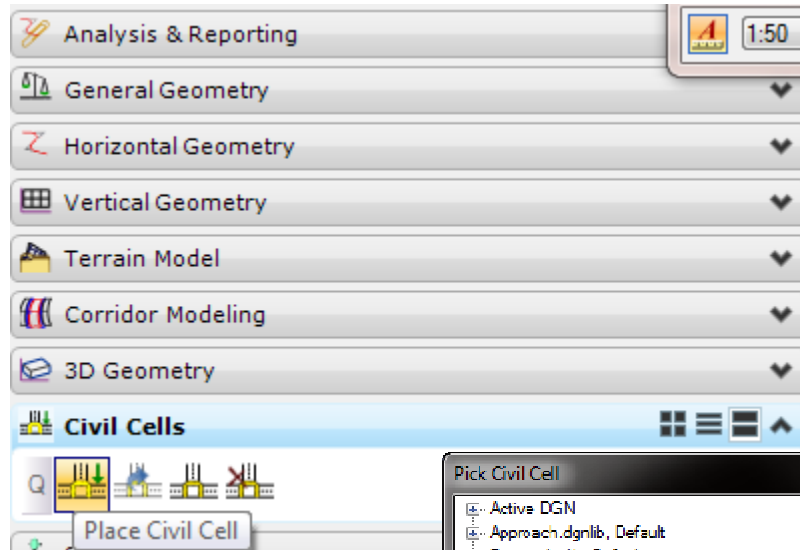


Place Civil Cells

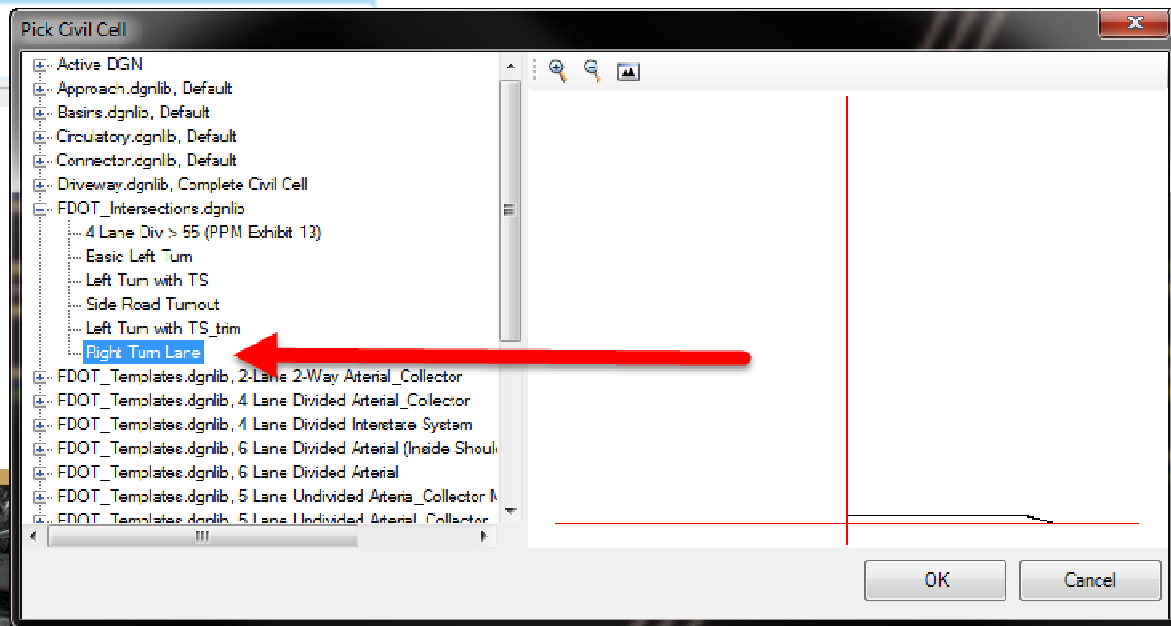


Innovative Solutions for tomorrow's transportation needs

Place Civil Cells



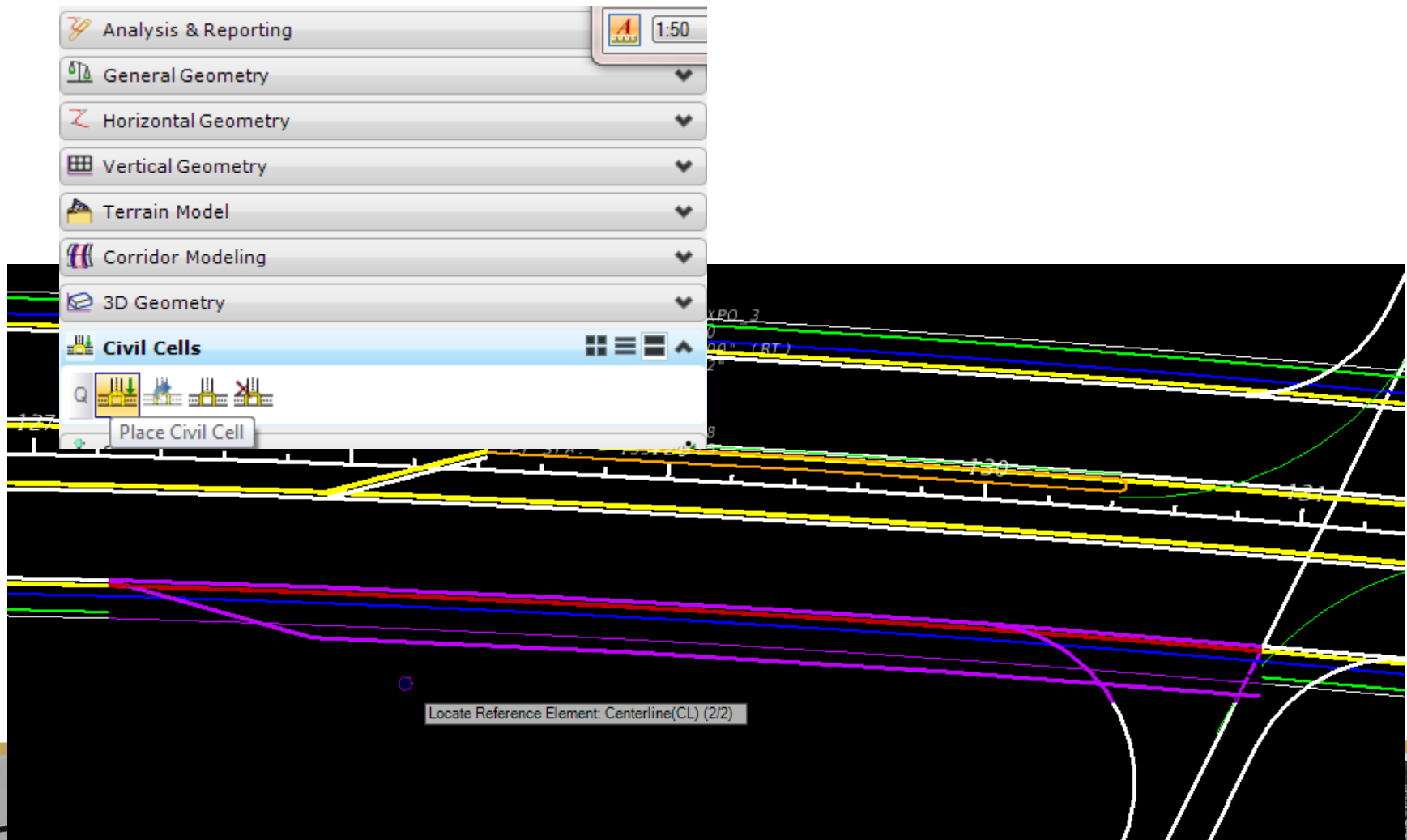
Right Turn Lane



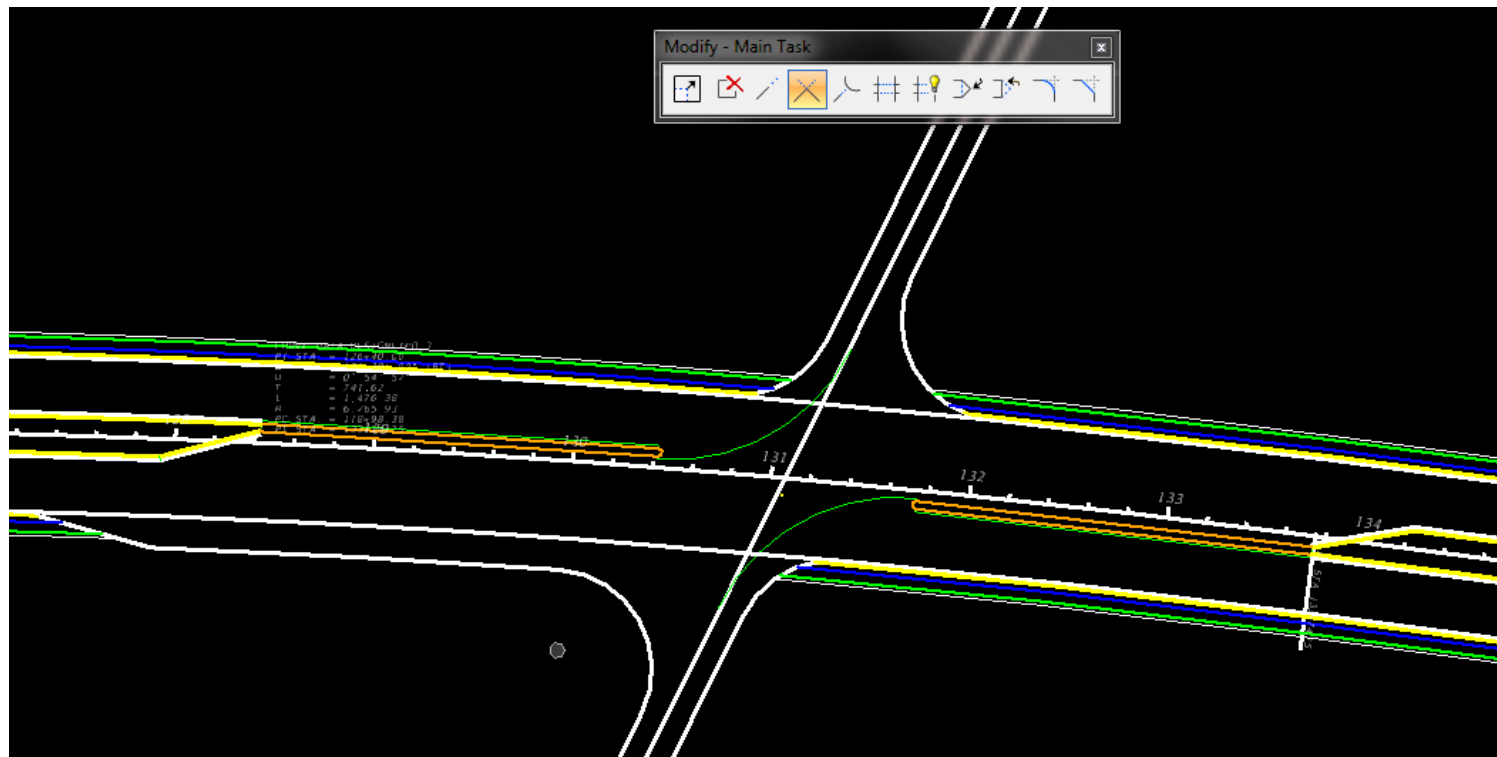
Innovative Solutions for tomorrow's transportation needs



Place Civil Cells



Modify Civil Elements



Horizontal Reports

Bentley Civil Report Browser C:\Users\rd964\vd\AppData\Local\Temp\RPT\40j3ztc.xml

File Tools Help

C:\ProgramData\Bentley\Civil\ReportBrowser\8.11.9\en\

- CivilGeometry
 - AlignmentToLandXML.xls
 - HorizontalAlignmentArea.xls
 - HorizontalAlignmentCheckIntegrity.xls
 - HorizontalAlignmentControlLineData Table.xls
 - HorizontalAlignmentCurveData Table.xls
 - HorizontalAlignmentIntervalXYZ.xls
 - HorizontalAlignmentLength.xls
 - HorizontalAlignmentReview.xls**
 - HorizontalAlignmentReviewASCII.xls
 - HorizontalAlignmentReviewWithPI.xls
 - HorizontalAlignmentStationEquation.xls
 - HorizontalAndVerticalAlignmentReview.xls
 - HorizontalElementsTable.xls
 - HorizontalElementsTableSimplified.xls
 - HorizontalElementsXYZ.xls
 - SettingOutTable.xls
 - SettingOutTableDeflection.xls
 - Traverse.xls
 - TraverseCurveASCII.xls
 - TraverseCurveASCII2.xls
 - TraverseCurveASCII3.xls
 - TraverseEditASCII.xls
 - TraversePoints.xls
 - VerticalAlignmentCheckIntegrity.xls
 - VerticalAlignmentIntervalStationElevationGrade.xls
 - VerticalAlignmentIntervalStationElevationGradeASCII.xls
 - VerticalAlignmentPointsXY.xls
 - VerticalAlignmentReview.xls
 - VerticalAlignmentReviewASCII.xls
 - VerticalAlignmentReviewXYZ.xls
- CivilSurvey
- Clearance
- ComdonModeling
- Custom
- DataCollection
- Evaluation
- Geometry
- ICS
- Images
- IntersectingAlignmentStations
- LandXML
- LegacyRoadwayDesign
- LegalDescription
- MapCheck
- Milling
- Obsolete
- Schemas
- SightVisibility
- Stakeout
- StationOffset

Horizontal Alignment Review Report

Report Created: 6/4/2014
Time: 9:05am

Project: Default
Description:
File Name: C:\e\projects\22049655201\roadway\DSGNRD003_SS3.DGN
Last Revised: 6/4/2014 09:03:14

Note: All units in this report are in feet unless specified otherwise.

Alignment Name: DesignExpo
Alignment Description:
Alignment Style: CenterlineVwithStationing(CLSIA)

		Station	Northing	Easting
Element: Linear				
POD	()	R 1 100+00	401954	1997365
PC	()	R 1 118+98	402153	1999253
Tangential Direction:		N 84°00'00" E		
Tangential Length:		1898		
Element: Circular				
PC	()	R 1 118+98	402153	1999253
PI	()	R 1 126+40	402230	1999991
CC	()		395821	1999908
PT	()	R 1 133+78	402134	2000726
Radius:		6266		
Delta:		13°30'00" Right		
Degree of Curvature (Arc):		3°00'00"		
Length:		1476		
Tangent:		742		
Chord:		1473		
Middle Ordinate:		43		
External:		44		
Tangent Direction:		N 84°00'00" E		
Radial Direction:		S 6°00'00" E		
Chord Direction:		S 89°15'00" E		
Radial Direction:		S 7°30'00" W		
Tangent Direction:		S 82°30'00" E		



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Contact Information

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605 Suwannee Street, Mail Station 69
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email vern.danforth@dot.state.fl.us

web: <http://www.dot.state.fl.us/ecso>



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